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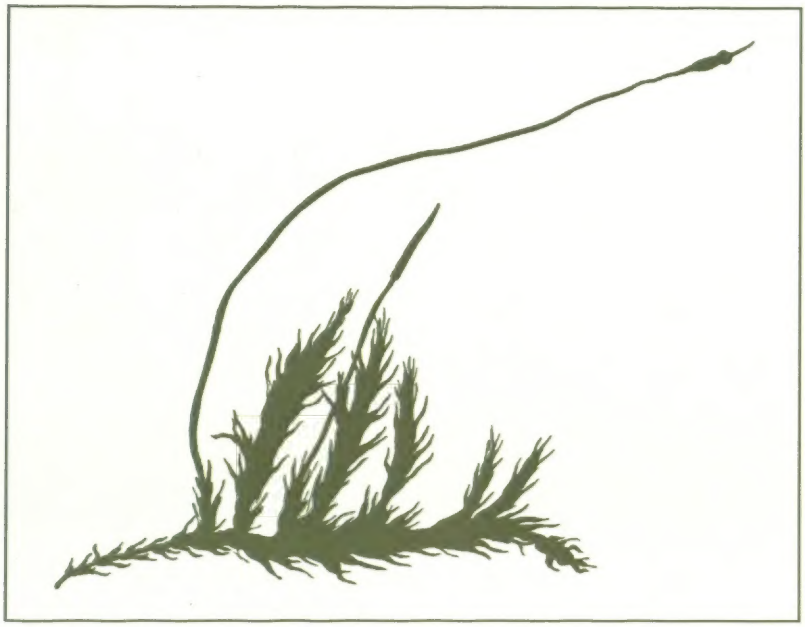

MISSOURI
BOTANICAL
GARDEN

Index of Mosses 1999-2001

Index of Mosses 1999–2001

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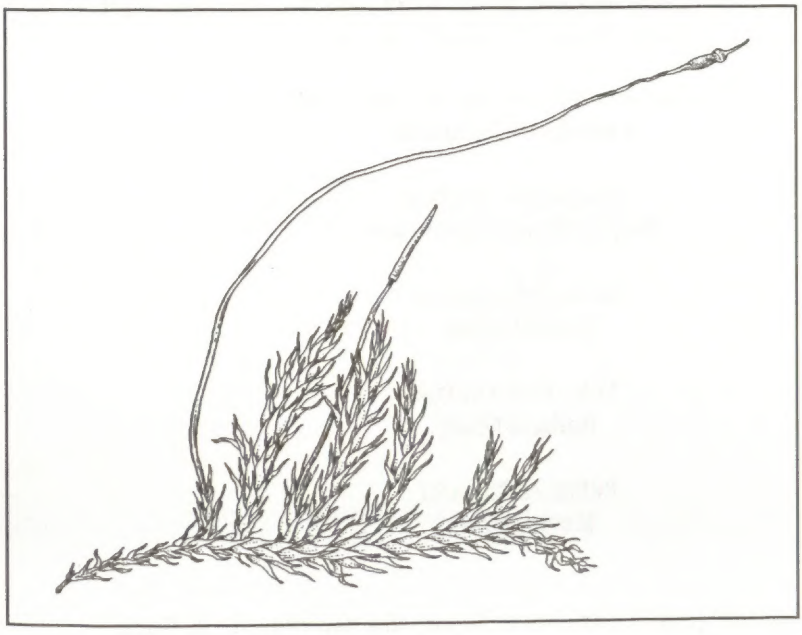
Index of Mosses

a catalog of the names and citations for new taxa, combinations, and names for mosses published during the years 1999 through 2001, inclusive, with citations of previously published basionyms and replaced names together with a bibliography of the publications in which these nova appeared

Marshall R. Crosby
Robert E. Magill



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INTRODUCTION

Index of Mosses, 1999–2001 (IOM 99–01), contains nova published between 1 January 1999 and 31 December 2001. In addition, nova that should have appeared in earlier *Indexes of Mosses* and valid nova that should have appeared in *Index Muscorum* are included. Finally, there are some corrections to the earlier *Indexes of Mosses* and *Index Muscorum*.

IOM 99–01 closely follows the style of the *Index of Mosses, 1963–1989*, which appeared in 1992, and later triennial installments, *Index of Mosses, 1990–1992* (1994), *Index of Mosses 1993–1995* (1997), and *Index of Mosses, 1996–1998* (2000); bibliographic details are provided on the next page. Users should read their introductions for details about content and format.

IOM 99–01 also lists authors of moss names and publications not listed in *Index of Mosses, 1963–1989*, with a few entries duplicated, when additional information is available.

As with earlier *Indexes of Mosses*, *IOM 99–01* is based on information contained in MOST, a subset of the database TROPICOS, developed and maintained at the Missouri Botanical Garden. *Index of Mosses* is a nomenclator: it does not reflect taxonomic interpretations of acceptance or synonymy.

Nomenclatural interpretations are based on the *St. Louis Code*. We interpret thirteen of the names published during the interim as invalid or illegitimate. Of these we feel that it is worth noting that Latin descriptions or diagnoses (or reference to previously published Latin descriptions or diagnoses) are required for names of *all* ranks, algae and fossils excepted, published after January 1, 1935. See Sphagnophyta. The *Code* does not provide for the simultaneous validation of multiple names by a single description except in the case of new monotypic genera based on new species (Article 34.1(d), 41.1, 42). See *Ambuchannia* and related entries.

The number of newly described species of mosses continues to decline, as mentioned in *IOM 96–98*. Here are the numbers of species with valid, legitimate names published during the last four, three-year intervals: 1990–1992, 132; 1993–1995, 116; 1996–1998, 102, 1999–2001, 89. Similarly, the taxonomic literature indicates that the number of species of mosses currently recognized continues to decline, as reflected in TROPICOS, from 13,062 in late 1997 to 12,537 in mid 2003. In mosses, there are more new synonyms to discover than new species.

Acknowledgments: We thank our muscological colleagues at MO, Bruce Allen, Steve Churchill, Patricia Eckel, Si He, Bob Ireland, and Richard Zander. Others have helped by sending reprints.

Index of Mosses, 1963–1989, M. R. Crosby, R. E. Magill & C. R. Bauer. 1992. Monographs in Systematic Botany from the Missouri Botanical Garden 42. [vi +] 646 pages.

Index of Mosses, 1990–1992. M. R. Crosby & R. E. Magill. 1994. Monographs in Systematic Botany from the Missouri Botanical Garden 50. [vi +] 87 pages

Index of Mosses, 1993–1995. M. R. Crosby & R. E. Magill. 1997. Monographs in Systematic Botany from the Missouri Botanical Garden 62. [vi +] 106 pages.

Index of Mosses, 1996–1998. M. R. Crosby. 2000. Monographs in Systematic Botany from the Missouri Botanical Garden 80. [vi +] 65 pages.

ACAULON C. Müller, 1847.

Acaulon longifolium Herrnstadt & Heyn, Nova Hedwigia 69: 229. f. 1. 1999. Type: Israël. "Sharon Plain, Pardess Hanna." *Kushnir s.n.* Mar 21, 1943. Holotype: HUJ. See Herrnstadt, I. & C. C. Heyn, 1999.

ACROPORIUM Mitten, 1868.

Acroporium esmeraldicum (C. Müller) W. R. Buck in Churchill, Griffin & J. Muñoz, Ruizia 17: 182. 2000. Basionym: *Hypnum esmeraldicum* C. Müller, 1851. See Churchill, S. P., D. Griffin III & J. Muñoz, 2000.

Acroporium strepsiphyllum (Montagne) B. C. Tan in Touw, 1992.

Acroporium strepsiphyllum var. ***falcifolium*** (Fleischer) B. C. Tan & Mohamed, Raffles Bull. Zool. Suppl. 6: 74. 1999. Basionym: *Sematophyllum falcifolium* Fleischer, 1905. See Tan, B. C. & H. Mohamed, 1999.

ACTINOTHUIDIUM (Bescherelle) Brotherus, 1908.

Actinothuidium hookeri (Mitten) Brotherus, 1908.

****Actinothuidium hookeri*** subsp. ***boreale*** Ignatov et al., Arctoa 8: 64. f. 18–19. 1999, invalid, herbarium for holotype not indicated. Type: Russia. "Khabarovsk Territory, Verkhnebureinsy Distr., Bureinsky State Reserve, Levaya Bureya River near Lan Creek mouth, on rotten stump." *Ignatov 97-1283*. Aug 25, 1997. "Typus . . . MHA, NICH, SINU." See Ignatov, M. S., E. A. Ignatova, Z. Iwatsuki & B. C. Tan, 1999.

AEQUATORIELLA Touw, J. Hattori Bot. Lab. 90: 202. 2001.Type: *Aequatoriella bifaria* (Bosch & Sande Lacoste) Touw, 2001 (*Thuidium bifarium* Bosch & Sande Lacoste, 1865), holotype. Original placement: Thuidiaceae. See Touw, A., 2001a.

Aequatoriella bifaria (Bosch & Sande Lacoste) Touw, J. Hattori Bot. Lab. 90: 202. 2001. Basionym: *Thuidium bifarium* Bosch & Sande Lacoste, 1865. See Touw, A., 2001a.

AMBLYODONTACEAE W. P. Schimper, Syn. Musc. Eur. (ed. 2) CII, 495. 1876, "Amblyodonteae." Type: *Amblyodon* Palisot de Beauvois, 1804. Other use: Amblyodontoideae (W. P. Schimper) Matteri & Ochyra, 1999.

AMBLYODONTOIDEAE (W. P. Schimper) Matteri & Ochyra, Hausknechtia Beih. 9: 229. 1999. Basionym: Amblyodontaceae W. P. Schimper, 1876. See Matteri, C. M. & R. Ochyra, 1999.

***AMBUCHANANIA** Seppelt & H. Crum in H. Crum & Seppelt, Contr. Univ. Michigan Herb. 22: 29. 1999, invalid, combined genus-family-order description. See Crum, H. & R. D. Seppelt, 1999.

****Ambuchanania leucobryoides*** Seppelt & H. Crum in H. Crum & Seppelt, Contr. Univ. Michigan Herb. 22: 29. 1999, invalid, genus invalid. See Crum, H. & R. D. Seppelt, 1999.

***AMBUCHANANIACEAE** Seppelt & H. Crum in H. Crum & Seppelt, Contr. Univ. Michigan Herb. 22: 29, 1999. invalid, combined genus-family-order description. See Crum, H. & R. D. Seppelt, 1999.

***AMBUCHANANIALES** Seppelt & H. Crum in H. Crum & Seppelt, Contr. Univ. Michigan Herb. 22: 29. 1999, invalid, combined genus-family-order description. See Crum, H. & R. D. Seppelt, 1999.

ANISOTHECIUM Mitten, 1869.

Anisothecium fontanum (Herzog) Ochyra, Fragm. Florist. Geobot. 44: 242. 1999. Basionym: *Ditrichum fontanum* Herzog, 1954. See Ochyra, R., 1999b.

ANOMODON W. J. Hooker & Taylor, 1818.

Anomodon perlinguatus Brotherus ex Wu Pan-cheng & Jia Yu, Acta Phytotax. Sin. 38: 260. f. 2. 2000. Type: China. "Shaanxi." *P. Giraldi 1272*. 1899-06-10. Holotype: H. See Wu Pan-cheng & Jia Yu, 2000.

ASCHISMA Lindberg, 1878.
Aschisma cuynetii (Bizot & Pierrot in Bizot, Dury & Pierrot) J. Guerra & Cano, J. Bryol. 22: 94. 2000. Basionym: *Phascum cuynetii* Bizot & Pierrot in Bizot, Dury & Pierrot, 1969 [1970]. See Guerra, J. & M. J. Cano, 2000.
ASTOMIOPSIS C. Müller, 1882.
Astomiopsis magilliana Snider, K. L. Yip & J. R. Clark, Bryologist 102: 119. f. 1–14. 1999. Type: South Africa. "Natal. Organ Pipes Pass, Cathedral Peak. On rocks on steep slope near stream." *Smook 1120.* Jan 26, 1978. Holotype: PRE. See Snider, J., K. L. Yip & J. Clark, 1999.
ATRACTYLOCARPUS Mitten, 1869, conserved name. Note: with the conservation of *Atractylocarpus*, the homotypic *Metzleria* may not be used.
Atractylocarpus comosus Dixon, Ann. Bryol. 7: 22. 1934. Other use: *Metzleria comosa* (Dixon) Frahm, 2000.
Atractylocarpus himalayanus (Brotherus) Frahm, Trop. Bryol. 18: 116. 2000. Basionym: *Brothera himalayana* Brotherus, 1901. See Frahm, J.-P., 2000b.
Atractylocarpus malagensis (Herzog) Frahm, Trop. Bryol. 18: 116. 2000. Basionym: *Campylopus malagensis* Herzog, 1916. See Frahm, J.-P., 2000b.
Atractylocarpus nanus R. S. Williams, Bryologist 31: 109. f. 10. 1928. Other use: *Metzleria nana* (R. S. Williams) Frahm, 2000.
Atractylocarpus patagonicus Herzog & Thériot, Ann. Bryol. 6: 124. 1933. Other use: *Metzleria patagonica* (Herzog & Thériot) Frahm, 2000.
AULACOMNIUM Schwägrichen, 1827, conserved orthography, "*Aulacomnion.*"
Aulacomnium palustre (Hedwig) Schwägrichen, 1827.
Aulacomnium palustre var. ***rupestre*** Austin, Musci Appalach. 38. 1870. Type: U.S.A. "Moist rocks, Palisades, near Closter, New Jersey." *Musci Appalachiani 219.* Note: not in *Index Muscorum*. See Austin, C. F., 1870.
BARBELLA Fleischer ex Brotherus, 1906.
Barbella koningsbergeri Fleischer, Musci Buitenzorg 4: 1666. f. 266. 1923. Other use: *Gammiella koningsbergeri* (Fleischer) B. C. Tan & Jia Yu, 1999.
Barbella strongylensis Bottini, Webbia 2: 387. 1907. Other use: *Rhynchostegium strongylense* (Bottini) W. R. Buck & Privitera, 1999.
BARBULA Hedwig, 1801, conserved name.
Barbula ditrichoides Brotherus, Akad. Wiss. Wien Sitzungsber., Math.-Naturwiss. Kl., Abt. 1, 133: 566. 1924. Other use: *Didymodon ditrichoides* (Brotherus) Li Xing-jiang & S. He in Li Xing-jiang, Crosby & S. He, 2001.
Barbula ehrenbergii (Lorentz) Fleischer, 1901.
Barbula ehrenbergii var. ***gemmipara*** Herrnstadt & Heyn, Nova Hedwigia 69: 234. f. 3. 1999. Type: Israël. "Lower Galilee, Nahal Keziv, 10–30 cm above water level." *Kaplan s.n.* Jul 22, 1987. Holotype: HUJ. See Herrnstadt, I. & C. C. Heyn, 1999.
Barbula ferruginascens Stirton, Ann. Scott. Nat. Hist. 9 (35): 176. 1900. Other use: *Didymodon ferruginascens* (Stirton) Frahm in W. Frey et al., 1995.
Barbula granulosa Thériot, Rev. Bryol. Lichénol. 9: 18. f. 10. 1936. Other use: *Pseudocrossidium granulosum* (Thériot) Churchill in Churchill, Griffin & J. Muñoz, 2000.
Barbula jacutica Ignatova, Arctoa 10: 161. f. 1–2. 2001. Type: Russia. "East Siberia, Republic Sakha/Yakutia, Ust-Maya District, Allakh-Yun, Tarbagannakh, 61°06′N, 138°10′E, 1000 m alt., along old road." *M. Ignatov 00-1060.* Aug 24, 2000. Holotype: MHA; isotypes: BUF, H, LE, MW. See Ignatova, E. A., 2001.
Barbula pallidobasis Dixon, Rev. Bryol. Lichénol. 7: 107. 1934. Other use: *Didymodon pallidobasis* (Dixon) Li Xing-jiang & Iwatsuki in Li Xing-jiang, Crosby & S. He, 2001.
BLINDIA Bruch & W. P. Schimper in B.S.G., 1846.
Blindia turpis Cardot, Bull. Herb. Boissier, sér. 2, 5: 1001. 1905. Other use:

Dicranoweisia turpis (Cardot) Ochyra, 1999.

BRACHYDONTIUM Fürnrohr, 1827.

Brachydontium microcarpum (W. J. Hooker & Wilson) Ochyra, Fragm. Florist. Geobot. 44: 503. 1999. Basionym: *Weissia microcarpa* W. J. Hooker & Wilson, 1859. See Ochyra, R., 1999e.

BRACHYMENIUM Schwägrichen, 1824.

Brachymenium gemmiferum A. J. Shaw & W. R. Buck in A. J. Shaw, B. H. Allen & W. R. Buck, Bryologist 101: 601. f. 9–14. 1998 [1999]. Type: Réunion. "Plaine des Cafres (Le Vignt-Septième), Le Volcan along Route Forestière no. 5, near turnoff to Piton Textor; alpine heath shrubland dominated by *Philippia*, with *Phylica, Stoebe, Helichrysum, Hypericum*, and *Sophora*, elev. 2100 m, 21°11′S, 55°39′E, epipetric on lava flow (a'a) in rock crevices." *Lorence 7512*. Holotype: NY.

BRACHYMITRION Taylor, 1846.

Brachymitrion immersum Goffinet, Bryologist 102: 109. f. 1. 1999. Type: Cameroon. "Southwest Province. Bui Division. Bamenda Highlands, Kilum Massif, Kilum Forest Preserve, near village of Elak-Oku, ca. 6°10′N, 10°30′E, 2600 m." *Litt 115*. Oct 30, 1996. Holotype: NY. See Goffinet, B., 1999.

BRACHYTHECIELLA Ignatov in Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 35. 1999.Type: *Brachytheciella stolonifera* Ignatov in Ignatov, T. Koponen & Norris, 1999, holotype. Original placement: Brachytheciaceae. See Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

Brachytheciella stolonifera Ignatov in Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 37. f. 6. 1999. Type: Papua New Guinea. "Simbu Prov.: Kombugomambuno, 4 km SE of Mt. Wilhelm, 5°48′S, 145°08′E, 3200 m alt., subalpine grassland, on *Cyathea* stem." *A. Mundua 138*. Dec 15, 1982. Holotype: H; isotype: MHA "and, according to label, also in CBH, CANB, LAE, NICH." See Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

BRACHYTHECIUM W. P. Schimper in B.S.G., 1853.

Brachythecium bellicum W. R. Buck et al., Nova Hedwigia 72: 468. f. 1–2. 2001. Type: Morocco. "Rif Jbel Bouhalla, 35°08′36″N, 5°08′42″W, 1700 m: piso supramediterráneo húmedo, hueco entre rocas con algo de suelo en bosque de *Abies pinsapo* y *Pinus pinaster*." *M. J. Cano & R. M. Ros s.n.* Jun 16, 1997. Holotype: MUB 9510; isotype: NY. Original placement: sect. *Velutina*. See Buck, W. R., J. A. Jiménez, R. M. Ros & M. J. Cano, 2001.

Brachythecium falcatum (Grout) H. Crum, Evansia 18: 62. 2001. Basionym: *Brachythecium oxycladon* fo. *falcatum* Grout, 1928. See Crum, H., 2001c.

Brachythecium koponenii Ignatov in Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 29. f. 2, 21. 1999. Type: Papua New Guinea. "Morobe Prov.: Mt. Sarawaket Southern Range, Lake Gwam, low scrub with scattered treeferns, alt. 3400 m, on humus, 6°19.5′S, 147°07′E, collecting locality 6e." *T. Koponen 32285*. Jul 7, 1981. Holotype: H. Paratypes cited. See Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

Brachythecium micrangium C. Müller, Nuovo Giorn. Bot. Ital., n.s., 3: 127. 1896. Other use: *Okamuraea micrangia* (C. Müller) Wang You-fang & Hu Ren-liang in Wang You-fang, Zhu Jun & Hu Ren-liang, 2000.

Brachythecium oxycladon (Bridel) Jaeger, 1878.

Brachythecium oxycladon fo. ***falcatum*** Grout, Moss Fl. N. Amer. 3: 36. 1928. Other use: *Brachythecium falcatum* (Grout) H. Crum, 2001.

Brachythecium papuense Ignatov in Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 33. 1999. Replaced name: *Cirriphyllum novae-guineae* Dixon, 1943. Blocking name: *Brachythecium novae-guineae* E. B. Bartram, 1962. See

Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

Brachythecium papuense var. ***ramosissimum*** Ignatov in Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 35. f. 5. 1999. Type: Papua New Guinea. "Morobe Prov.: Mt. Sarawaket, Southern Range, 2.5 km S of L[ake] Gwam and E of Mt. Enggum, headwaters of Sankwep R. Deep S-sloping valley with scattered scrub and spring, alt. 3500–3570 m, 6°21′S, 147°07′E. Open wet valley[;] on boulder along stream." *Koponen 32693*. Jul 9, 1981. Holotype: H. See Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

BREUTELIA (Bruch & W. P. Schimper) W. P. Schimper, 1856.

Breutelia pilifera B. H. Allen & Griffin, Novon 9: 2. f. 1. 1999. Type: Costa Rica. "Cartago: Tapantí Forest Reserve ca. 25 km SE of Cartago." *Griffin & Eakin 196*. Holotype: MO; isotypes: F, FLAS, NY, US. Paratype cited. See Allen, B. & D. Griffin III, 1999.

BROTHERA C. Müller, 1900.

Brothera himalayana Brotherus, Nat. Pflanzenfam. I(3): 330. 1901. Other use: *Atractylocarpus himalayanus* (Brotherus) Frahm, 2000.

BROTHERELLA Loeske ex Fleischer, 1914.

Brotherella celebensis Dixon, Ann. Bryol. 7: 34. 1934. Other use: *Warburgiella celebensis* (Dixon) B. C. Tan, 2000.

Brotherella falcatula Brotherus in Handel-Mazzetti, Symb. Sin. 4: 119. 1929. Other use: *Brotherella henonii* var. *falcatula* (Brotherus in Handel-Mazzetti) B. C. Tan & Jia Yu, 1999.

Brotherella henonii (Duby) Fleischer, 1914.

Brotherella henonii var. ***falcatula*** (Brotherus in Handel-Mazzetti) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 32. 1999. Basionym: *Brotherella falcatula* Brotherus in Handel-Mazzetti, 1929. See Tan, B. C. & Jia Yu, 1999.

Brotherella nictans (Mitten) Brotherus, 1925.

Brotherella nictans var. ***zangmu-xingjiangiorum*** B. C. Tan, Hikobia 13: 188. f. 1–9. 2000, "*zangmu-xingjiangii*." Type: China. Yunnan: "Dulong-jiang (River), on decaying log at 1750 m elev." *Zang Mu 3609*. Aug 1982. Holotype: SINU; isotype: KUN. See Tan, B. C., 2000b.

BRYOCHENEA Gao Chien & Zhang Guang-chu, 1982.

Bryochenea vestitissima (Bescherelle) Touw, J. Hattori Bot. Lab. 90: 202. 2001. Basionym: *Thuidium vestitissimum* Bescherelle, 1892. See Touw, A., 2001a.

BRYUM Hedwig, 1801.

Bryum alpinulum Bescherelle, 1880.

Bryum alpinulum var. ***levieri*** Renauld & Cardot in Renauld, Suppl. Prodr. Fl. Bryol. Madagascar 59. 1909. Type: Madagascar. "Dans le forêt de Fito." *Perrot s.n.* Type: "Hb. Levier." Note: not in *Index Muscorum*. See Renauld, F., 1909.

Bryum palustre Dickson, Fasc. Pl. Crypt. Brit. 4: 11. 1801. Other use: *Dichodontium palustre* (Dickson) Stech, 1999.

Bryum turbinatum (Hedwig) Turner, 1804.

Bryum turbinatum fo. ***submersum*** (Limpricht in E. Bauer) Podpěra, Consp. Musc. Eur. 369. 1954. Basionym: *Bryum submersum* Limpricht in E. Bauer, 1894. Note: cited in *IOM 63–89* from *Bryum Gen. Monogr. Prodr.* 16: 231. 1973.

BUCKIELLA Ireland, Novon 11: 55. 2001.Type: *Buckiella undulata* (Hedwig) Ireland, 2001 (*Hypnum undulatum* Hedwig, 1801), holotype. Original placement: Hypnaceae. See Ireland, R. R., 2001.

Buckiella draytonii (Sullivant) Ireland, Novon 11: 61. 2001. Basionym: *Hypnum draytonii* Sullivant, 1854. See Ireland, R. R., 2001.

Buckiella undulata (Hedwig) Ireland, Novon 11: 55. 2001. Basionym: *Hypnum undulatum* Hedwig, 1801. See Ireland, R. R., 2001.

CALYPTROCHAETA Desvaux, 1825.

Calyptrochaeta brassii (E. B. Bartram) Streimann, J. Hattori Bot. Lab. 88: 108. 2000. Basionym: *Eriopus brassii* E. B. Bartram, 1952. See Streimann, H., 2000.

Calyptrochaeta otwayensis Streimann, J. Hattori Bot. Lab. 88: 116. f. 9. 2000. Type: Australia. "Victoria. Melba State Park, Lavers Hill, 26 km WNW of Apollo Bay, 380 m, on *Nothfagus* and other tree bases, in poor disturbed *Nothofagus* and *Acacia* forest on slopes in valley." *H. S[treimann] 58384*. Dec 1996. Holotype: CANB; isotype: MEL and "(distributed in *Musci Austral. Exs.*)" Other indicated distribution: Australia (Tasmania). See Streimann, H., 2000.

CAMPYLIACEAE (Kanda) W. R. Buck in W. R. Buck & Goffinet in A. J. Shaw & Goffinet, Bryoph. Biol. 110. 2000. Basionym: Campylioideae Kanda, 1975 [1976]. See Buck, W. R. & B. Goffinet, 2000.

CAMPYLIOIDEAE Kanda, J. Sci. Hiroshima Univ., Ser. B, Div. 2, Bot. 15: 250. 1975 [1976].Type: *Campylium* (Sullivant in A. Gray) Mitten, 1869 (*Hypnum* sect. *Campylium* Sullivant in A. Gray, 1856). Other use: Campyliaceae (Kanda) W. R. Buck in W. R. Buck & Goffinet in A. J. Shaw & Goffinet, 2000. Original placement: Amblystegiaceae. See Kanda, H., 1975 [1976].

CAMPYLIUM (Sullivant in A. Gray) Mitten, 1869.

Campylium calcareum Crundwell & Nyholm, 1962 [1963].

Campylium calcareum fo. ***latifolia*** Schljakov, Novosti Syst. Nizš. Rast. 32: 183. f. 2. 1998. Other use: *Campylophyllum sommerfeltii* fo. *latifolium* (Schljakov) Schljakov, 1999.

CAMPYLOPHYLLUM (W. P. Schimper) Fleischer, 1914.

Campylophyllum sommerfeltii (Myrin) Hedenäs, 1997.

Campylophyllum sommerfeltii fo. ***latifolium*** (Schljakov) Schljakov, Novosti Syst. Nizš. Rast. 33: 197. 1999. Basionym: *Campylium calcareum* fo. *latifolia* Schljakov, 1998. See Schljakov, R. N., 1999.

Campylopodium euchlorum (Montagne) Matteri in Matteri & Calabrese, Ann. Bot. Fenn. 36: 47. 1999. Basionym: *Dicranum euchlorum* Montagne, 1845. See Matteri, C. M. & G. M. Calabrese, 1999.

CAMPYLOPUS Bridel, 1819 [1818].

Campylopus malagensis Herzog, Biblioth. Bot. 87: 23. pl. 1: f. 6. 1916. Other use: *Atractylocarpus malagensis* (Herzog) Frahm, 2000.

Campylopus pilifer Bridel, 1819 [1818].

Campylopus pilifer subsp. ***vaporarius*** (De Notaris) Brullo, Privitera & M. Puglisi, Bocconea 13: 333. 2001. Basionym: *Campylopus polytrichoides* var. *vaporarius* De Notaris, 1869. See Brullo, S., M. Privitera & M. Puglisi, 2001.

Campylopus polytrichoides De Notaris, 1838.

Campylopus polytrichoides var. ***vaporarius*** De Notaris, Atti Reale Univ. Genova 1: 646. 1869. Other use: *Campylopus pilifer* subsp. *vaporarius* (De Notaris) Brullo, Privitera & M. Puglisi, 2001.

Campylopus schwarzii W. P. Schimper, Musci Eur. Nov. 1. pl. 1. 1864. Other use: *Paraleucobryum schwarzii* (W. P. Schimper) Gao Chien & Vitt in Gao Chien, Crosby & S. He, 1999.

CAMPYLOSTELIUM Bruch & W. P. Schimper in B.S.G., 1846.

Campylostelium brachycarpum (Noguchi) Iwatsuki, Tateishi & Tad. Suzuki, Hikobia 13: 84. 1999. Basionym: *Campylostelium saxicola* var. *brachycarpum* Noguchi, 1950. See Iwatsuki, Z., Y. Tateishi & T. Suzuki, 1999.

Campylostelium saxicola (Weber & D. Mohr) Bruch & W. P. Schimper in B.S.G., 1846.

Campylostelium saxicola var. ***brachycarpum*** Noguchi, J. Jap. Bot. 25: 78. 40. 1950. Other use: *Campylostelium brachycarpum* (Noguchi) Iwatsuki, Tateishi & Tad. Suzuki, 1999.

CHAETOMITRIUM Dozy & Molkenboer, 1846.

Chaetomitrium crispifolium E. B. Bartram, Svensk Bot. Tidskr. 47: 401. 1953. Other use: *Unclejackia crispifolia* (E. B. Bartram) Ignatov, T. Koponen & Norris, 1999.

Chaetomitrium darnaedii H. Akiyama & Suleiman, Hikobia 13: 498. f. 4, 11. 2001. Type: Indonesia [Borneo]. "East Kalimantan, Bulungan, Long Bawan, 950–1050 m, intermingled with *Chaetomitrium everettii*." *Akiyama K-24124A*. Holotype: HYO; isotypes: BO, L, NY. See Akiyama, H. & M. Suleiman, 2001.

Chaetomitrium longisetulum E. B. Bartram, Lloydia 5: 280. 45. 1942. Other use: *Unclejackia longisetula* (E. B. Bartram) Ignatov, T. Koponen & Norris, 1999.

Chaetomitrium maryatii H. Akiyama & Suleiman, Hikobia 13: 504. f. 5, 17. 2001. Type: Malaysia [Sabah]. "Agathis trail, in the vicinity of Agathis camp, foot of Maliau Basin, NNW of Kalabakan, Tawau (N 04°43′, E 116°50′), 500 m." *Akiyama Maliau—576*. May 18, 2001. Holotype: HYO; isotypes: BM, MO, NY, UMS. Paratypes cited. See Akiyama, H. & M. Suleiman, 2001.

Chaetomitrium seramense H. Akiyama, Bryol. Res. 7: 258. f. 1–2. 1999, "*seramensis*." Type: Indonesia. "Central Seram, en route from Wae Heka Heka to Wae Pasola Hatu, ca. 500 m alt." *H. Akiyama C-16011*. Holotype: HYO; isotypes: BO, L. See Akiyama, H., 1999.

CHIONOLOMA Dixon, 1922.

Chionoloma bombayense (C. Müller) P. Sollman, Trop. Bryol. 20: 139. 2001. Basionym: *Trichostomum bombayense* C. Müller, 1851. See Sollman, P., 2001.

CHIONOSTOMUM C. Müller, 1869.

Chionostomum hainanensis B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 34. f. 8: 5–11. 1999. Type: China. "Hainan, Mt. Wuji, on bamboo branches." *Fudan Biology Department 2*. Nov 8, 1954. Holotype: PE; isotype: FH. Paratype cited. See Tan, B. C. & Jia Yu, 1999.

CINCLIDOTUS Palisot de Beauvois, 1804.

Cinclidotus bistratosus Kürschner & Lübenau-Nestle, Nova Hedwigia 70: 471. f. 1–22. 2000. Type: Turkey. "Antalya Province: Köprülü Kanyon National Park, Köprü Irmagi, ca. 15 km north of Beskonak, between Oluk bridge and Çaltepe, at the end of the steep canyon, ca. 250 m alt., on rocks exposed to submergence, flood zone of the Aksu Irmagi." *R. & H. Panzer s.n.* 21 Apr, 1999. Holotype: B; isotype: herb. Kürschner, herb. Lübenau. See Kürschner, H. & R. Lübenau-Nestle, 2000.

CIRRIPHYLLUM Grout, 1898.

Cirriphyllum novae-guineae Dixon, Farlowia 1: 37. 1943. Other use: *Brachythecium papuense* Ignatov in Ignatov, T. Koponen & Norris, 1999.

CLAOPODIUM (Lesquereux & T. P. James) Renauld & Cardot, 1893.

Claopodium leptopteris (C. Müller) Wu Pan-cheng & Wang Mei-zhi in Wu Pan-cheng & Jia Yu, Acta Phytotax. Sin. 38: 261. 2000. Basionym: *Haplocladium leptopteris* C. Müller, 1896. See Wu Pan-cheng & Jia Yu, 2000.

CLASTOBRYOPSIS Fleischer, 1923.

Clastobryopsis delicata Fleischer, Musci Buitenzorg 4: 1180. 1923. Other use: *Clastobryopsis planula* var. *delicata* (Fleischer) B. C. Tan & Jia Yu, 1999.

Clastobryopsis planula (Mitten) Fleischer, 1923.

Clastobryopsis planula var. ***delicata*** (Fleischer) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 14. 1999. Basionym: *Clastobryopsis delicata* Fleischer, 1923. See Tan, B. C. & Jia Yu, 1999.

COSCINODON Sprengel, 1804.

Coscinodon australis Dixon & Sainsbury, Trans. & Proc. Roy. Soc. New Zealand 75: 175. 1945. Other use: *Grimmia australis* (Dixon & Sainsbury) J. Muñoz & Ochyra, 1999.

Coscinodon yukonensis Hastings, Bryologist 102: 278. f. 42–51, 53–54. 1999. Type: Canada. "Yukon Territory. Itsi Range, Selwyn Mts., N end of unnamed lake, S of Fuller L[ake], 62°56′N, 130°09′W, 1600–1700 m alt." *Schofield 70122*. Aug 9, 1978. Holotype: ALTA; isotype: CANM. Other indicated distribution: Canada: British Columbia. U.S.A.: Alaska. See Hastings, R. I., 1999.

CRYPHAEA D. Mohr & Weber, 1814 [1813].

Cryphaea subgen. ***Filiformes*** P. Rao, Bryobrothera 7: 20. 2001. Type: *Cryphaea filiformis* (Hedwig) Bridel, 1819 [1818] (*Neckera filiformis* Hedwig, 1801), holotype. See Rao, Pengcheng, 2001a.

Cryphaea sect. ***Glomeratae*** P. Rao, Bryobrothera 7: 20. 2001. Type: *Cryphaea glomerata* W. P. Schimper ex Sullivant in A. Gray, 1856, holotype. See Rao, Pengcheng, 2001a.

Cryphaea bollei Brotherus & Geheeb in Geheeb & Herzog, Biblioth. Bot. 73: 47. 1910. Other use: *Pseudoleskeopsis bollei* (Brotherus & Geheeb in Geheeb & Herzog) P. Rao, 2001.

Cryphaea lanceolata P. Rao & Enroth, Bryobrothera 5: 170. f. 2. 1999. Type: China. "NW Sichuan, Minshan Range, Nanping Co. Bia-He River valley 70 km SW of Nanpin city and 3 km NE from Jiu-Dao-Guai Bridge, orotemperate *Betula utilis-Fraxinus-Prunus-Tilia* forest, alt. 2480–2510 m, 33°14′N, 103°46′E, on branch of fallen tree trunk of recently cut deciduous tree." *T. Koponen 46842*. Sep 19, 1991. Holotype: H. See Rao, Pengcheng & J. Enroth, 1999.

Cryphaea leveillei Thériot, Monde Pl. 9(45): 22. 1907. Other use: *Cyptodontopsis leveillei* (Thériot) P. Rao & Enroth, 1999.

Cryphaea omeiensis P. Rao, Ann. Bot. Fenn. 37: 53. f. 1–2, 5. 2000. Type: China. "Prov. Sichuan, Mount Omei Shan SW of Chendu, alt. 1000–2000 m, epiphytic in forest, on tree trunk." *A. Touw 23924*. Oct 24, 1980. Holotype: L. See Rao, Pengcheng, 2000.

Cryphaea ravenelii Austin, Bot. Gaz. (Crawfordsville) 2: 89. 1877. Other use: *Monocryphaea ravenelii* (Austin) P. Rao, 2001.

Cryphaea sinensis E. B. Bartram, Ann. Bryol. 8: 15. f. 9. 1935. Other use: *Sphaerotheciella sinensis* (E. B. Bartram) P. Rao, 2000.

CTENIDIUM (W. P. Schimper) Mitten, 1869.

Ctenidium reduncum W. P. Schimper ex Mitten, J. Linn. Soc., Bot. 12: 509. 1869. Other use: *Mittenothamnium reduncum* (W. P. Schimper ex Mitten) Ochyra, 1999.

CYPTODONTOPSIS Dixon, 1937.

Cyptodontopsis leveillei (Thériot) P. Rao & Enroth, Bryobrothera 5: 185. 1999. Basionym: *Cryphaea leveillei* Thériot, 1907. See Rao, Pengcheng & J. Enroth, 1999.

CYRTO-HYPNUM Hampe, 1869.

Cyrto-hypnum contortulum (Mitten) Wu Pan-cheng, Crosby & S. He, Chenia 6: 6. 1999. Basionym: *Leskea contortula* Mitten, 1859. See Wu Peng-chen, M. Crosby & S. He, 1999.

Cyrto-hypnum fuscatum (Bescherelle) Wu Pan-cheng, Crosby & S. He, Chenia 6: 10. 1999. Basionym: *Thuidium fuscatum* Bescherelle, 1892. See Wu Peng-chen, M. Crosby & S. He, 1999.

Cyrto-hypnum microphyllum (Schwägrichen) Wu Pan-cheng, Crosby & S. He, Chenia 6: 7. 1999. Basionym: *Haplohymenium microphyllum* Schwägrichen, 1829. See Wu Peng-chen, M. Crosby & S. He, 1999.

Cyrto-hypnum unipinnatum (Fang Yan-ming & T. Koponen) W. R. Buck, Bryologist 104: 501. 2001. Basionym: *Thuidium unipinnatum* Fang Yan-ming & T. Koponen, 2001. See Buck, W. R., 2001.

DALTONIA W. J. Hooker & Taylor, 1818, conserved name.

Daltonia lamyana Montagne, Ann. Sci. Nat. Bot., sér. 2, 6: 327. pl. 18: f. 2. 1836. Other use: *Dendrocryphaea lamyana* (Montagne) P. Rao, 2001.

DENDROCRYPHAEA Paris & W. P. Schimper ex Brotherus, 1905.

Dendrocryphaea lamyana (Montagne) P. Rao, Bryobrothera 7: 103. 2001. Basionym: *Daltonia lamyana* Montagne, 1836. See Rao, Pengcheng, 2001b.

DIAPHANODON Renauld & Cardot, 1895.

Diaphanodon blandus (Harvey in W. J. Hooker) Renauld & Cardot, 1900.

Diaphanodon blandus subsp. ***friisii*** (Bizot & Lewinsky) Zanten & C. C. Townsend, Haussknechtia Beih. 9: 407. 1999.

Basionym: *Diaphanodon friisii* Bizot & Lewinsky, 1978. See Zanten, B. O. van & C. C. Townsend, 1999.

Diaphanodon blandus fo. ***recurvidentatus*** (Zanten) Zanten in Zanten & C. C. Townsend, Haussknechtia Beih. 9: 406. 1999, "*recurvedentatus*." Basionym: *Diaphanodon blandus* var. *recurvidentatus* Zanten, 1959. See Zanten, B. O. van & C. C. Townsend, 1999.

Diaphanodon blandus var. ***recurvidentatus*** Zanten, Blumea 9: 544. pl. 6, f. 1: j–k. 1959. Other use: *Diaphanodon blandus* fo. *recurvidentatus* (Zanten) Zanten in Zanten & C. C. Townsend, 1999.

Diaphanodon friisii Bizot & Lewinsky, Lindbergia 4: 275. f. 2. 1978. Other use: *Diaphanodon blandus* subsp. *friisii* (Bizot & Lewinsky) Zanten & C. C. Townsend, 1999.

Diaphanodon laevivittatus Zanten & C. C. Townsend, Haussknechtia Beih. 9: 407. f. 1. 1999. Type: Indonesia. "Java. Pangerango." *Jaeger 2c*. Sep 13, 1938. Holotype: BM-Dixon. See Zanten, B. O. van & C. C. Townsend, 1999.

DICHODONTIUM W. P. Schimper, 1856.

Dichodontium palustre (Dickson) Stech, Nova Hedwigia 69: 239. 1999. Basionym: *Bryum palustre* Dickson, 1801. See Stech, M., 1999.

DICRANELLA (C. Müller) W. P. Schimper, 1856, conserved name.

Dicranella gremmenii Ochyra, Fragm. Florist. Geobot. 44: 221. f. 3. 1999. Type: South Africa. "Prince Edward Islands. Marion Island: Gamma Kop, lat. 46°54′45″S, long. 37°45′50″E, elev. ca. 930 m." *Ochyra & Smith 690/99*. Apr 12, 1999. Holotype: PRE; isotypes: BM, H, KRAM, NY, herb. Matteri, herb. Olson. Paratypes cited. See Ochyra, R., 1999a.

****Dicranella recurvata*** Ochyra, Arts & Lewis-Smith in Ochyra, Bednarek-Ochyra & Lewis-Smith, Polish Polar Stud., 25th Int. Polar Symp. 166. 1998, invalid, no Latin description. See Ochyra, R., H. Bednarek-Ochyra & R. Lewis-Smith, 1998.

†**DICRANITES** Klebs, 1907.

†***Dicranites grollei*** Frahm, Haussknechtia Beih. 9: 129. f. 1–2. 1999. Type: Baltic amber, *Glink 1*. Glink collection. See Frahm, J.-P., 1999.

DICRANOLOMA (Renauld) Renauld, 1901.

Dicranoloma bartramianum (B. H. Allen) Klazenga, J. Hattori Bot. Lab. 87: 57. 1999. Basionym: *Dicranum bartramianum* B. H. Allen, 1987. See Klazenga, N., 1999.

Dicranoloma cutlackii (Norris & T. Koponen) Klazenga, J. Hattori Bot. Lab. 87: 84. 1999. Basionym: *Dicranum cutlackii* Norris & T. Koponen, 1990. See Klazenga, N., 1999.

Dicranoloma fragile Brotherus, Nat. Pflanzenfam. (ed. 2) 10: 209. 1924. Replaced name: *Dicranum fragile* W. J. Hooker, 1819. Blocking name: *Dicranum fragile* Bridel, 1801. Other use: *Dicranum psathyrum* Klazenga, 1999.

DICRANOWEISIA Lindberg ex Milde, 1869.

Dicranoweisia insularis (Mitten) Ochyra, Fragm. Florist. Geobot. 44: 500. 1999. Basionym: *Grimmia insularis* Mitten, 1876. See Ochyra, R., 1999d.

Dicranoweisia macrospora (Reimers) Ochyra, Fragm. Florist. Geobot. 44: 500. 1999. Basionym: *Verrucidens macrosporus* Reimers, 1936. See Ochyra, R., 1999d.

Dicranoweisia turpis (Cardot) Ochyra, Fragm. Florist. Geobot. 44: 500. 1999. Basionym: *Blindia turpis* Cardot, 1905. See Ochyra, R., 1999d.

DICRANUM Hedwig, 1801.

Dicranum subgen. ***Pseudochorisodontium*** Brotherus, Nat. Pflanzenfam. (ed. 2) 10: 207. 1924. Other use: *Pseudochorisodontium* (Brotherus) Gao Chien et al. in Gao Chien, Crosby & S. He, 1999.

Dicranum bartramianum B. H. Allen, Cryptog. Bryol. Lichénol. 8: 323. 1987. Replaced name: *Dicnemon robustum* E. B. Bartram, 1945. Blocking name: *Dicranum robustum* J. D. Hooker & Wilson, 1844. Other use: *Dicranoloma*

bartramianum (B. H. Allen) Klazenga, 1999.

Dicranum conanenum Gao Chien in Gao Chien & Zhang Guang-chu, Acta Phytotax. Sin. 17: 115. f. 1: 1–7. 1979. Other use: *Pseudochorisodontium conanenum* (Gao Chien in Gao Chien & Zhang Guang-chu) Gao Chien in Gao Chien et al. in Gao Chien, Crosby & S. He, 1999.

Dicranum cutlackii Norris & T. Koponen, Acta Bot. Fenn. 139: 38. 1990. Other use: *Dicranoloma cutlackii* (Norris & T. Koponen) Klazenga, 1999.

Dicranum dispersum Engelmark, Stuttgarter Beitr. Naturk., A 592: 4. f. 1, 3. 1999. Type: Germany. "Baden-Württemberg, Signaringen, Oberschmeien." *T. Engelmark s.n.* May 13, 1980. Holotype: S; isotype: STU. Other indicated distribution: Iran, Mongolia, Russia. See Engelmark, T.-B., 1999.

Dicranum euchlorum Montagne, Ann. Sci. Nat. Bot., sér. 3, 4: 112. 1845. Other use: *Campylopodium euchlorum* (Montagne) Matteri in Matteri & Calabrese, 1999.

Dicranum gymnostomum Mitten, J. Proc. Linn. Soc., Bot., Suppl. 1: 14. 1859. Other use: *Pseudochorisodontium gymnostomum* (Mitten) Gao Chien et al. in Gao Chien, Crosby & S. He, 1999.

Dicranum gymnostomum var. ***hokinense*** Bescherelle, Ann. Sci. Nat. Bot., sér. 7, 15: 51. 1892. Other use: *Pseudochorisodontium hokinense* (Bescherelle) Gao Chien, Vitt & Fu Xing in Gao Chien, Crosby & S. He, 1999.

Dicranum mamillosum Gao Chien & Aur Zhi-wen, Bull. Bot. Lab. N.-E. Forest. Inst., Harbin 7: 98. f. 1: 9–16. 1980. Other use: *Pseudochorisodontium mamillosum* (Gao Chien & Aur Zhi-wen) Gao Chien et al. in Gao Chien, Crosby & S. He, 1999.

****Dicranum orientale*** Otnyukova, Bot. Žurn. (Moscow & Leningrad) 85(10): 82. f. 1–2. 2000, illegitimate, later homonym. Earlier name: *Dicranum orientale* (Weber) D. Mohr, 1806. Type: Russia. "Tuva Respublica, depressio laci, Azas (Todga), 52°26′ lat. bor., 96°37′ long. orient., 950 m.s.m." *T. Otnjukova N 1249*. Aug 1, 1995. Holotype: KRF; isotypes: IRK, LE, MHA. Paratypes cited. See Otnyukova, T. N., 2000.

Dicranum psathyrum Klazenga, J. Hattori Bot. Lab. 87: 118. 1999. Replaced name: *Dicranoloma fragile* Brotherus, 1924. Blocking name: *Dicranum fragile* Bridel, 1801. See Klazenga, N., 1999.

Dicranum ramosum Gao Chien & Aur Zhi-wen, Bull. Bot. Lab. N.-E. Forest. Inst., Harbin 7: 97. f. 1: 1–8. 1980. Other use: *Pseudochorisodontium ramosum* (Gao Chien & Aur Zhi-wen) Gao Chien et al. in Gao Chien, Crosby & S. He, 1999.

Dicranum setschwanicum Brotherus, Symb. Sin. 4: 26. 1929. Other use: *Pseudochorisodontium setschwanicum* (Brotherus) Gao Chien et al. in Gao Chien, Crosby & S. He, 1999.

DIDYMODON Hedwig, 1801.

Didymodon ditrichoides (Brotherus) Li Xing-jiang & S. He in Li Xing-jiang, Crosby & S. He, Moss Fl. China 2: 160. 2001. Basionym: *Barbula ditrichoides* Brotherus, 1924. See Li Xing-jiang, M. R. Crosby & S. He (editors), 2001.

Didymodon ferruginascens (Stirton) Frahm in W. Frey et al., Kleine Kryptogamenfl. (ed. 6) 4: 206. 1995. Basionym: *Barbula ferruginascens* Stirton, 1900. Note: not in *IOM 93–95*. See Frey, W., J.-P. Frahm, E. Fischer & W. Lobin, 1995.

Didymodon gorodkovii (A. L. Abramova & I. I. Abramov in I. I. Abramov) Schljakov, Novosti Syst. Nizš. Rast. 33: 197. 1999. Basionym: *Didymodon rufus* var. *gorodkovii* A. L. Abramova & I. I. Abramov in I. I. Abramov, 1963. See Schljakov, R. N., 1999.

Didymodon norrisii Zander, Bryologist 102: 112. f. 1–11. 1999. Type: U.S.A. "California. Humboldt Co., near Kneeland, Sec. 22, R2E, T4N." *D. H. Norris 7884*. Oct 8, 1967. Holotype: BUF; isotype: UC. Other indicated distribution: U.S.A. (Oregon). See Zander, R. H., 1999.

Didymodon pallidobasis (Dixon) Li Xing-jiang & Iwatsuki in Li Xing-jiang, Crosby & S. He, Moss Fl. China 2: 166. 2001. Basionym: *Barbula pallidobasis* Dixon, 1934. See Li Xing-jiang, M. R. Crosby & S. He (editors), 2001.

Didymodon rufus Lorentz in Rabenhorst, 1863.

Didymodon rufus var. ***gorodkovii*** A. L. Abramova & I. I. Abramov in I. I. Abramov, Trudy Arktič. Antarktič. Nauč.-Issl. Inst. Glavn. Upravl. Servern. Morsk. Minist. Flota SSSR 224: 220. f. 2–3. 1963. Other use: *Didymodon gorodkovii* (A. L. Abramova & I. I. Abramov in I. I. Abramov) Schljakov, 1999.

DIPHYSCIUM D. Mohr, 1803.

Diphyscium chiapense Norris, 1981.

Diphyscium chiapense ssp. ***unipapillosum*** (Deguchi) Chiang Tzen-yuh & Lin Shan-hsiung, Bot. Bull. Acad. Sin. 42: 217. 2001. Basionym: *Diphyscium unipapillosum* Deguchi, 1984. See Chiang, Tzen-yuh & Shang-hsiung Lin, 2001.

Diphyscium unipapillosum Deguchi, J. Jap. Bot. 59(4): 97. f. 1. 1984. Other use: *Diphyscium chiapense* ssp. *unipapillosum* (Deguchi) Chiang Tzen-yuh & Lin Shan-hsiung, 2001.

DISTICHOPHYLLUM Dozy & Molkenboer, 1846.

Distichophyllum scabrisetum H. Akiyama & Yamaguchi, Bryol. Res. 7: 206. f. 1. 1999. Type: Malaysia. "Sabah, reserved forest near Head Quarter Office of Kinabalu National Park, ca. 1400 m alt." *Akiyama & Yamaguchi 539*. Dec 25, 1997. Holotype: HYO; isotype: HIRO, UMS. See Akiyama, H. & T. Yamaguchi, 1999.

DITRICHUM Hampe, 1867, conserved name.

Ditrichum brevisetum Kiguchi, Tad. Suzuki & Iwatsuki, Hikobia 13: 521. f. 1. 2001. Type: Japan. "Honshu, Shizuoka-ken, Haibara-gun, Yoshida-cho, Kawashiri, 20 m alt." *T. Suzuki & Z. Iwatsuki 60487*. Apr 18, 1998. Holotype: NICH; isotypes: herb. H. Kiguchi, herb. T. Suzuki. Paratypes cited. See Kiguchi, H., T. Suzuki & Z. Iwatsuki, 2001.

Ditrichum fontanum Herzog, Rev. Bryol. Lichénol. 23: 70. 1954. Other use: *Anisothecium fontanum* (Herzog) Ochyra, 1999.

DREPANOCLADUS (C. Müller) G. Roth, 1899, conserved name.

Drepanocladus kurilensis Smirnova, Bot. Mater. Otd. Sporov. Rast. 8: 210. 1. 1912. Other use: *Warnstorfia kurilensis* (Smirnova) Schljakov, 1999.

Drepanocladus stagnatus Żarnowiec, Taxon. Monogr. *Drepanocladus anduncus* Group 206. f. 73–77. 2001. Type: Poland. "Podlaskie woj., Suwalki Landscape Park, Lizdejki 23 km north of Sumałki, alt. 250 m; submerged in pools in wet meadowland on the right bank of the River Szeszupa between Lake Lizdejki and Lake Przechodnie." *R. Ochyra s.n.* May 16, 1979. Holotype: KRAM; isotypes: BR, G, H, JE, KRAM, M, U. Other indicated distribution: Austria, Belgium, Denmark, France, Germany, Great Britain, Greenland, Latvia, Netherlands, Poland, Sweden, Switzerland. See Żarnowiec, J., 2001.

***DREPANOPHYLLUM** Schwägrichen, 1823, illegitimate, later homonym.

Drepanophyllum duidense R. S. Williams, Bull. Torrey Bot. Club 58: 501. f. 44. 1931. Other use: *Phyllodrepanium falcifolium* var. *duidense* (R. S. Williams) Pursell & B. H. Allen, 1999.

DRUMMONDIACEAE (Vitt) Goffinet in W. R. Buck & Goffinet in A. J. Shaw & Goffinet, Bryoph. Biol. 99. 2000. Basionym: Drummondioideae Vitt, 1972. See Buck, W. R. & B. Goffinet, 2000.

DRUMMONDIOIDEAE Vitt, Canad. J. Bot. 50: 1194. 1972, "Drummondoideae." Other use: Drummondiaceae (Vitt) Goffinet in W. R. Buck & Goffinet in A. J. Shaw & Goffinet, 2000.

ECHINOPHYLLUM T. J. O'Brien in T. J. O'Brien & D. G. Horton, Bryologist 103: 513. 2000. Type: *Echinophyllum sachalinense* (Lindberg) T. J. O'Brien in T. J. O'Brien & D. G. Horton, 2000

(*Thuidium sachalinense* Lindberg, 1872), holotype. Original placement: Thuidiaceae. See O'Brien, T. J. & D. Horton, 2000.

Echinophyllum sachalinense (Lindberg) T. J. O'Brien in T. J. O'Brien & D. G. Horton, Bryologist 103: 513. 2000, "*sachalinensis*." Basionym: *Thuidium sachalinense* Lindberg, 1872. See O'Brien, T. J. & D. Horton, 2000.

ECTROPOTHECIUM Mitten, 1868.

****Ectropothecium mauritianum*** (Brotherus in Voeltzkow) Nishimura, J. Hattori Bot. Lab. 58: 75. 1985, illegitimate, later homonym. Basionym: *Ctenidium mauritianum* Brotherus in Voeltzkow, 1908. Earlier name: *Ectropothecium mauritianum* Renauld & Cardot in Paris, 1900. Correct name: *Ectropothecium nishimurii* O'Shea & Ochyra, 2000.

Ectropothecium nishimurii O'Shea & Ochyra, Trop. Bryol. 18: 121. 2000. Replaced name: *Ectropothecium mauritianum* (Brotherus in Voeltzkow) Nishimura, 1985. Blocking name: *Ectropothecium mauritianum* Renauld & Cardot in Paris, 1900. See O'Shea, B. J. & R. Ochyra, 2000.

ENCALYPTA Hedwig, 1801.

Encalypta sinica Zhao Jian-cheng & Li Min in Zhao Jian-cheng, Li Min & Li Ji-biao, Arctoa 8: 1. f. 1–181. 1999. Type: China. "Hebei Province, Mt. Xiaowutai (39°50′–40°07′N, 114°30′E), on soil or rock surface." *Li Min 97047b*. Aug 5, 1997. Holotype: Dept. biol. Hebei Normal Univ., Shijiazhuang. See Zhao Jian-cheng, Li Min & Li Ji-biao, 1999.

ENTOSTHODON Schwägrichen, 1823.

Entosthodon convexus (Spruce) Brugués, Orsis 15: 115. 2000. Basionym: *Funaria convexa* Spruce, 1847. See Brugués, M., 2000.

Entosthodon pulchellus (Philibert) Brugués, Orsis 15: 115. 2000. Basionym: *Funaria pulchella* Philibert, 1884. See Brugués, M., 2000.

Entosthodon schimperi Brugués in Brugués, Dirkse & Sérgio, Cryptog. Bryol. 22: 252. 2001. Replaced name: *Funaria duriaei* W. P. Schimper in Bescherelle, 1882. Blocking name: *Entosthodon duriaei* Montagne, 1849. See Brugués, M., G. Dirkse & C. Sérgio, 2001.

Entosthodon subnudus (Taylor) Fife, 1985.

Entosthodon subnudus var. ***phymatodeus*** (Catcheside) Fife & Seppelt, Hikobia 13: 483. 2001. Basionym: *Physcomitrium phymatodeum* Catcheside, 1980. See Fife, A. J. & R. D. Seppelt, 2001.

***ERIOPUS** (Bridel) Bridel, 1827, illegitimate, type of earlier name included.

Eriopus brassii E. B. Bartram, Farlowia 4: 246. 1952. Other use: *Calyptrochaeta brassii* (E. B. Bartram) Streimann, 2000.

EURHYNCHIUM Bruch & W. P. Schimper in B.S.G., 1854.

Eurhynchium bergmaniae E. B. Bartram, Svensk Bot. Tidskr. 54: 486. 1960. Other use: *Eurhynchium vagans* var. *bergmaniae* (E. B. Bartram) Ignatov in Ignatov, T. Koponen & Norris, 1999.

Eurhynchium hians (Hedwig) Sande Lacoste, 1866.

Eurhynchium hians var. ***rigidum*** (Boulay) Frahm in W. Frey et al., Kleine Kryptogamenfl. (ed. 6) 4: 293. 1995. Basionym: *Hypnum praelongum* var. *rigidum* Boulay, 1872. Note: not in *IOM 93–95*. See Frey, W., J.-P. Frahm, E. Fischer & W. Lobin, 1995.

Eurhynchium trichocladoides Ignatov in Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 58. f. 17, 22. 1999. Type: Papua New Guinea. "Morobe Prov.: Lake Wamba 5 km S of Teptep airstrip, heavily disturbed (pigs) montane forest with large *Pandanus* trees SW of lake, on humus, alt 2550–2600 m, collecting locality 2k, 6°01′S, 146°33′E." *T. Koponen 34197*. Jul 25, 1981. Holotype: H; isotype: MHA. See Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

Eurhynchium vagans (Jaeger) E. B. Bartram, 1933.

Eurhynchium vagans var. ***bergmaniae*** (E. B. Bartram) Ignatov in Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 55. 1999. Basionym: *Eurhynchium bergmaniae* E. B. Bartram, 1960. See

Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

FELIPPONEA Brotherus in Felippone, 1912.

Felipponea assimilis (C. Müller) O'Shea, Trop. Bryol. 20: 47. 2001. Basionym: *Neckera assimilis* C. Müller, 1850. See O'Shea, B. J., 2001.

FISSIDENS Hedwig, 1801.

Fissidens acacioides Schrader, 1803.

Fissidens acacioides var. ***brevicostatus*** (Pursell, Bruggeman-Nannenga & B. H. Allen) Pursell, Bryobrothera 5: 175. 1999. Basionym: *Fissidens stissotheca* var. *brevicostatus* Pursell, Bruggeman-Nannenga & B. H. Allen, 1988. See Pursell, R. A., 1999a.

Fissidens acacioides var. ***immersus*** (Mitten) Pursell, Bryobrothera 5: 175. 1999. Basionym: *Fissidens immersus* Mitten, 1869. See Pursell, R. A., 1999a.

Fissidens australiensis Jaeger, Enum. Fissident. 24. 1869. Other use: *Fissidens tenellus* var. *australiensis* (Jaeger) Beever & Stone, 1999.

Fissidens bistratosus Bruggeman-Nannenga, Bryobrothera 5: 69. 1999. Type: Seychelles. "Mahé, on rocks in stream, submerged, Congo Rouge, 700 m." *Norkett 17298*. Holotype: BM; isotype: U. See Bruggeman-Nannenga, M. A., 1999.

Fissidens crispulus Bridel, 1819 [1818].

Fissidens crispulus var. ***robinsonii*** (Brotherus) Iwatsuki & Li Zhi-hua in Li Xing-jiang, Crosby & S. He, Moss Fl. China 2: 26. 2001. Basionym: *Fissidens robinsonii* Brotherus, 1918. See Li Xing-jiang, M. R. Crosby & S. He (editors), 2001.

Fissidens immersus Mitten, J. Linn. Soc., Bot. 12: 584. 1869. Other use: *Fissidens acacioides* var. *immersus* (Mitten) Pursell, 1999.

Fissidens jansenii Sérgio & Pursell, Bryologist 104: 378. f. 1–2. 2001. Type: Portugal. "Beira alta. Serra da Estrela, Poço do Inderno, famous cascade from granite cliff, 29TPE260703, 1,100 m." *J. Jansen 95-052*. Aug 4, 1995. Holotype: LISU; isotype: PAC. Paratypes cited. See Sérgio, C. & R. A. Pursell, 2001.

Fissidens lagenarius Mitten, 1868.

Fissidens lagenarius var. ***muriculatus*** (Spruce ex Mitten) Pursell, Bryologist 102: 126. 1999. Basionym: *Fissidens muriculatus* Spruce ex Mitten, 1869. See Pursell, R. A., 1999b.

Fissidens leptochaete Dusén, Ark. Bot. 6(8): 5. pl. 3, f. 7–9. 1906. Other use: *Fissidens tenellus* var. *leptochaete* (Dusén) Beever & Stone, 1999.

Fissidens muriculatus Spruce ex Mitten, J. Linn. Soc., Bot. 12: 593. 1869. Other use: *Fissidens lagenarius* var. *muriculatus* (Spruce ex Mitten) Pursell, 1999.

Fissidens rigidulus J. D. Hooker & Wilson, 1854.

Fissidens rigidulus var. ***pseudostrictus*** Beever in Beever & Stone, New Zealand J. Bot. 37: 646. f. 2. 1999. Type: New Zealand. "North Auckland Land District, Waitakere Ranges, Glen Esk Stream, 36°57′S, 174°29′E, on bedrock . . . c. 100 m a.s.l." *J. E. & R. E. Beever 73-96a*. Apr 25, 1992. Holotype: CHR; isotypes: AK, BM, MEL, WELT. Paratypes cited. See Beever, J. E., 1999.

Fissidens robinsonii Brotherus, Philipp. J. Sci. 13: 204. 1918. Other use: *Fissidens crispulus* var. *robinsonii* (Brotherus) Iwatsuki & Li Zhi-hua in Li Xing-jiang, Crosby & S. He, 2001.

Fissidens stissotheca (C. Müller) Mitten, 1869.

Fissidens stissotheca var. ***brevicostatus*** Pursell, Bruggeman-Nannenga & B. H. Allen, Bryologist 91: 213. f. 70–71. 1988. Other use: *Fissidens acacioides* var. *brevicostatus* (Pursell, Bruggeman-Nannenga & B. H. Allen) Pursell, 1999.

Fissidens sylvaticus Griffith, 1842.

Fissidens sylvaticus var. ***ramosus*** Banu-Fattah in Banu-Fattah & Hadiuzzaman, Bangladesh J. Bot. 28: 177. pl. 1. 1999. Type: Bangladesh. "Rangamati, Kaptai, proximus lacus in soli." *Md. Abdul Hassan 162*. Jun 14, 1987. Holotype:

DUBH. See Banu-Fattah, K. & S. Hadiuzzaman, 1999.

Fissidens tenellus W. J. Hooker & Wilson, 1854.

Fissidens tenellus var. ***australiensis*** (Jaeger) Beever & Stone, New Zealand J. Bot. 37: 651. 1999. Basionym: *Fissidens australiensis* Jaeger, 1869. See Beever, J. E., 1999.

Fissidens tenellus var. ***leptochaete*** (Dusén) Beever & Stone, New Zealand J. Bot. 37: 651. 1999. Basionym: *Fissidens leptochaete* Dusén, 1906. See Beever, J. E., 1999.

Fissidens waiensis Beever in Beever & Stone, New Zealand J. Bot. 37: 643. f. 1. 1999. Type: New Zealand. "North Auckland Land District, Taranga (Hen) Island, Stead Bay, 35°58′S, 174°42′E, on rock . . . 10 m a.s.l." *A. E. Wright 10903*. Dec 31, 1990. Holotype: AK; isotypes: BM, CANB, CHR, HO, NY, WELT, herb. Stone. Paratypes cited. See Beever, J. E., 1999.

FUNARIA Hedwig, 1801.

Funaria convexa Spruce, Musci Pyren. 149. 1847. Other use: *Entosthodon convexus* (Spruce) Brugués, 2000.

Funaria duriaei W. P. Schimper in Bescherelle, Cat. Mous. Algérie 23. 1882. Other use: *Entosthodon schimperi* Brugués in Brugués, Dirkse & Sérgio, 2001.

Funaria pulchella Philibert, Rev. Bryol. 11: 41. 1884. Other use: *Entosthodon pulchellus* (Philibert) Brugués, 2000.

GAMMIELLA Brotherus, 1908.

Gammiella koningsbergeri (Fleischer) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 64. 1999. Basionym: *Barbella koningsbergeri* Fleischer, 1923. See Tan, B. C. & Jia Yu, 1999.

Gammiella panchienii B. C. Tan & Jia Yu ex B. C. Tan, Hikobia 13: 187. 2000. Type: China. "Xizang. Metuo County, Xigong Lake, under forest, on rotten wood, 1480 m elev." *Y.-g. Su 4041*. Mar 1983. Holotype: KUN; isotype: FH, MO. Note: invalid, herbarium not designated, in B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 16. f. 7: 1–4. 1999. See Tan, B. C., 2000b.

GOLLANIA Brotherus, 1908, conserved name.

Gollania longii Higuchi, Hikobia 13: 525. f. 1. 2001. Type: China. "Yunnan Province, Diqing Prefecture, Zhongdian County, Tian Shu Lake above Xiaozhongdian, 3825 m, on hummock in marsh at damp peaty slopes by lake." *Long 24288*. Jun 13, 1993. Holotype: E; isotype: TNS. See Higuchi, M., 2001.

GONIOMITRIUM J. D. Hooker & Wilson, 1846.

Goniomitrium acuminatum W. J. Hooker & Wilson, 1846.

Goniomitrium acuminatum subsp. ***enerve*** (W. J. Hooker & Wilson) Fife & Seppelt, Hikobia 13: 487. 2001. Basionym: *Goniomitrium enerve* W. J. Hooker & Wilson, 1846. See Fife, A. J. & R. D. Seppelt, 2001.

Goniomitrium enerve W. J. Hooker & Wilson, London J. Bot. 5: 142. f. 3: A. 1846. Other use: *Goniomitrium acuminatum* subsp. *enerve* (W. J. Hooker & Wilson) Fife & Seppelt, 2001.

GRADSTEINIA Ochyra, 1990.

Gradsteinia torrenticola Ochyra, C. Schmidt & Bültmann, J. Bryol. 20: 403. f. 1. 1998. Other use: *Platyhypnidium torrenticola* (Ochyra, C. Schmidt & Bültmann) Ochyra & Bednarek-Ochyra, 1999.

GRIMMIA Hedwig, 1801.

Grimmia australis (Dixon & Sainsbury) J. Muñoz & Ochyra, J. Bryol. 21: 319. 1999. Basionym: *Coscinodon australis* Dixon & Sainsbury, 1945. See Muñoz, J. & R. Ochyra, 1999.

Grimmia indica (Dixon & Potier de la Varde) Goffinet & Greven, J. Bryol. 22: 141. 2000. Basionym: *Trigonodictyon indicum* Dixon & Potier de la Varde, 1928. See Goffinet, B. & H. C. Greven, 2000.

Grimmia insularis Mitten, J. Linn. Soc., Bot. 15: 73. 1876. Other use: *Dicranoweisia insularis* (Mitten) Ochyra, 1999.

Grimmia mexicana Greven, Bryologist 102: 432. f. 2. 1999. Type: Mexico. "Puebla.

Pico de Orizaba, track to Piedra Grande, elev. 3870 m, sunny S-facing andesite rock." *H. C. Greven M100*. Dec 4, 1997. Holotype: BM; isotype: ENCB, FH, MEXU, MICH, NY. Paratypes cited. See Greven, H. C., 1999.

Grimmia molesta J. Muñoz, Ann. Missouri Bot. Gard. 86: 15. f. 24. 1999. Type: Peru. "Arequipa: Arequipa, am Weg nach Puno." *Hegewald & Hegewald 5480*. Holotype: MO; isotypes: H, IBA, NY. See Muñoz, J., 1999.

Grimmia olivacea Herzog, Biblioth. Bot. 87: 56. f. 18: g–m. 1916. Other use: *Schistidium olivaceum* (Herzog) Ochyra & J. Muñoz, 2000.

Grimmia readeri Brotherus, Nat. Pflanzenfam. I(3): 448. 1902. Replaced name: *Grimmia atricha* C. Müller, 1898. Blocking name: *Grimmia atricha* C. Müller & Kindberg in Macoun, 1892. Other use: *Schistidium readeri* (Brotherus) Ochyra & J. Muñoz, 2000.

Grimmia squamatula Herzog, Biblioth. Bot. 87: 56. f. 18 a–f. 1916. Other use: *Schistidium squamatulum* (Herzog) Ochyra & J. Muñoz, 2000.

Grimmia subflexifolia C. Müller, Hedwigia 37: 164. 1898. Other use: *Schistidium rivulare* var. *subflexifolium* (C. Müller) Fife, 2000.

Grimmia williamsii Deguchi, Stud. Cryptog. S. Peru 33. 1987. Replaced name: *Grimmia julacea* R. S. Williams, 1909. Blocking name: *Grimmia julacea* (Hedwig) Weber & D. Mohr, 1803. Other use: *Jaffueliobryum williamsii* (Deguchi) Delgadillo M., 2000.

Grimmia yaulensis Brotherus, Bot. Jahrb. Syst. 56(Beibl. 123): 11. 1920. Other use: *Schistidium yaulense* (Brotherus) Ochyra & J. Muñoz, 2000.

HAGENIELLA Brotherus, 1910.

Hageniella micans (Mitten) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 37. 1999. Basionym: *Stereodon micans* Mitten, 1859. See Tan, B. C. & Jia Yu, 1999.

HAPLOCLADIUM (C. Müller) C. Müller, 1899.

Haplocladium leptopteris C. Müller, Nuovo Giorn. Bot. Ital., n.s., 3: 116. 1896. Other use: *Claopodium leptopteris* (C. Müller) Wu Pan-cheng & Wang Mei-zhi in Wu Pan-cheng & Jia Yu, 2000.

HAPLOHYMENIUM Dozy & Molkenboer, 1846, conserved name.

Haplohymenium microphyllum Schwägrichen, Sp. Musc. Frond., Suppl. 3 2(1): [unpaged &] pl. 271. 1829. Other use: *Cyrto-hypnum microphyllum* (Schwägrichen) Wu Pan-cheng, Crosby & S. He, 1999.

HENNEDIELLA Paris, 1896.

Hennediella diaguita Zander & Mahu, Bryologist 102: 349–351. f. 1–11. 1999. Type: Chile. "Prov. de Limari. Parque Nacional Fray Jorge, La Escondida, motorral of *Trichocereus*, *Eriocyse* and *Caesalpina*, on soil, 270 m." *Mahú 21946*. Sep 10, 1986. Holotype: BUF; isotype: SGO. See Zander, R. H. & M. Mahú, 1999.

HYGROHYPNUM Lindberg, 1872.

Hygrohypnum brasiliense Herzog, Hedwigia 67: 258. 1927. Other use: *Sematophyllum brasiliense* (Herzog) Ochyra, 1999.

Hygrohypnum circinatum Herzog, Memoranda Soc. Fauna Fl. Fenn. 25: 51. f. 5: a–h. 1950. Other use: *Mittenothamnium circinatum* (Herzog) Ochyra, 1999.

Hygrohypnum pelichucense R. S. Williams, Bull. New York Bot. Gard. 6(21): 258. 1909. Other use: *Mittenothamnium pelichucense* (R. S. Williams) Ochyra, 1999.

Hygrohypnum peruviense R. S. Williams, Bull. Torrey Bot. Club 43: 332. pl. 18: f. 7–12. 1916. Other use: *Platyhypnidium peruviense* (R. S. Williams) Ochyra, 1999.

Hygrohypnum robinsonii H. Crum, Bryologist 88: 22. f. 1–4. 1985. Other use: *Mittenothamnium robinsonii* (H. Crum) Ochyra, 1999.

Hygrohypnum steerei A. J. Sharp, Bryologist 81: 319. f. 1–8. 1978. Other use: *Sematophyllum steerei* (A. J. Sharp) Ochyra, 1999.

Hygrohypnum tequendamense Herzog, Memoranda Soc. Fauna Fl. Fenn. 25: 53.

f. 5: i–n. 1950. Other use: *Mittenothamnium tequendamense* (Herzog) Ochyra, 1999.

Hygrohypnum tequendamense var. ***subfalcatum*** Herzog, Memoranda Soc. Fauna Fl. Fenn. 25: 53. f. 5: o. 1950. Other use: *Mittenothamnium tequendamense* var. *subfalcatum* (Herzog) Ochyra, 1999.

Hygrohypnum validum Herzog, Biblioth. Bot. 87: 146. 1916. Other use: *Platyhypnidium validum* (Herzog) Ochyra, 1999.

HYPNIDAE subcl. W. R. Buck, Goffinet & A. J. Shaw, Molec. Phylogenet. Evol. 16: 195. 2000. Type: *Hypnum* Hedwig, 1801. See Buck, W. R., B. Goffinet & A. J. Shaw, 2000.

HYPNODONTOPSIS Iwatsuki & Noguchi in Iwatsuki, 1957.

†***Hypnodontopsis confertus*** (Göppert & Berendt) Frahm, Trop. Bryol. 20: 80. 2001. Basionym: *Muscites confertus* Göppert & Berendt, 1845. See Frahm, J.-P., 2001b.

†***Hypnodontopsis fossilis*** Frahm, Lindbergia 25: 36. f. 9. 2000. Type: Saxon amber, *M. Kutscher s.n.* "Collection of M. Kutscher." See Frahm, J.-P., 2000a.

HYPNUM Hedwig, 1801, conserved name.

Hypnum apiculigerum Lindberg & H. Arnell, Kongl. Svenska Vetenskapsakad. Handl. 23(10): 132. 1890. Other use: *Scleropodium apiculigerum* (Lindberg & H. Arnell) Frahm in W. Frey et al., 1995.

Hypnum aquaticum (Hedwig) Jolyclerc, Syst. Sex. Vég. 752. 1803. Basionym: *Anictangium aquaticum* Hedwig, 1801. Note: not in *Index Muscorum*. See Jolyclerc, N., 1803.

Hypnum draytonii Sullivant, Proc. Amer. Acad. Arts 3: 76. 1854. Other use: *Buckiella draytonii* (Sullivant) Ireland, 2001.

Hypnum esmeraldicum C. Müller, Syn. Musc. Frond. 2: 392. 1851. Replaced name: *Hypnum microcladum* Taylor, 1846. Blocking name: *Hypnum microcladon* Dozy & Molkenboer, 1844. Other use: *Acroporium esmeraldicum* (C. Müller) W. R. Buck in Churchill, Griffin & J. Muñoz, 2000.

Hypnum fontinaliopsis C. Müller, Bot. Jahrb. Syst. 5: 82. 1883. Other use: *Warnstorfia fontinaliopsis* (C. Müller) Ochyra in Ochyra & Matteri, 2001.

Hypnum gratum Palisot de Beauvois, Prodr. Aethéogam. 64. 1805. Other use: *Pelekium gratum* (Palisot de Beauvois) Touw, 2001.

Hypnum haplohymenium Harvey, J. Bot. (Hooker) 2: 21. 1840, "*haplophynemum*." Replaced name: *Haplohymenium microphyllum* Schwägrichen, 1829. Blocking name: *Hypnum microphyllum* Hedwig, 1801. Other use: *Pelekium haplohymenium* (Harvey) Touw, 2001. Note: incorrectly cited from "London J. Bot." and dated from 1843 in *Index Muscorum* 3: 78. 1964. Harvey's citation includes "*Leskea microphylla* Hook. in Wall. Cat. n. 7638," indicating an appreciation of the existence of Hedwig's *Hypnum microphyllum* from Jamaica and the need to avoid the creation of a later homonym, and "*Haplophynemum* [sic] *microphyllum* Schwaegr. Suppl. t. 271," based on a Hooker collection from Nepal, the basis for the new epithet.

Hypnum investe Mitten, Hooker's J. Bot. Kew Gard. Misc. 8: 355. 1856. Other use: *Pelekium investe* (Mitten) Touw, 2001.

Hypnum lusitanicum W. P. Schimper, Syn. Musc. Eur. (ed. 2) 2: 781. 1876. Other use: *Platyhypnidium lusitanicum* (W. P. Schimper) Ochyra & Bednarek-Ochyra, 1999.

Hypnum minutulum Hedwig, Sp. Musc. Frond. 260. 1801. Other use: *Pelekium minutulum* (Hedwig) Touw, 2001.

Hypnum muricatulum Hampe, Linnaea 20: 88. 1847. Other use: *Pelekium muricatulum* (Hampe) Touw, 2001.

Hypnum praelongum Hedwig, 1801.

Hypnum praelongum var. ***rigidum*** Boulay, Fl. Crypt. Est, Muscin. 230. 1872. Other use: *Eurhynchium hians* var. *rigidum* (Boulay) Frahm in W. Frey et al., 1995.

Hypnum schistocalyx C. Müller, Syn. Musc. Frond. 2: 691. 1851. Other use: *Pelekium schistocalyx* (C. Müller) Touw, 2001.

Hypnum siphotheca C. Müller, Bot. Zeitung (Berlin) 16: 171. 1858. Other use: *Pelekium siphotheca* (C. Müller) Touw, 2001.

Hypnum stissophyllum Hampe & C. Müller, Syn. Musc. Frond. 2: 273. 1851. Other use: *Papillidiopsis stissophylla* (Hampe & C. Müller) B. C. Tan & Jia Yu, 1999.

Hypnum undulatum Hedwig, Sp. Musc. Frond. 242. 1801. Other use: *Buckiella undulata* (Hedwig) Ireland, 2001, *Neckeropsis undulata* (Hedwig) Kindberg ex J. A. Allen, 1900.

Hypnum variegatum Welwitsch & Duby, Mém. Soc. Phys. Genève 21: 436. pl. 4: f. 4. 1872. Other use: *Rhacopilopsis variegata* (Welwitsch & Duby) M. C. Watling & O'Shea, 2000.

Hypnum versicolor Hornschuch ex C. Müller, Syn. Musc. Frond. 2: 494. 1851. Other use: *Pelekium versicolor* (Hornschuch ex C. Müller) Touw, 2001.

INDOTHUIDIUM Touw, J. Hattori Bot. Lab. 90: 202. 2001.Type: *Indothuidium kiasense* (R. S. Williams) Touw, 2001 (*Thuidium kiasense* R. S. Williams, 1914), holotype. Original placement: Thuidiaceae. See Touw, A., 2001a.

Indothuidium kiasense (R. S. Williams) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Thuidium kiasense* R. S. Williams, 1914. See Touw, A., 2001a.

ISOTHECIUM Bridel, 1827.

Isothecium kenyae Tosco & Piovano, Allionia 4: 142. f. 21. 1956. Other use: *Kindbergia kenyae* (Tosco & Piovano) O'Shea & Ochyra, 2000. Note: not in *Index Muscorum*.

JAFFUELIOBRYUM Thériot, 1928.

Jaffueliobryum williamsii (Deguchi) Delgadillo M., J. Bryol. 22: 295. 2000. Basionym: *Grimmia williamsii* Deguchi, 1987. See Delgadillo M., C., 2000.

KINDBERGIA Ochyra, 1982.

Kindbergia kenyae (Tosco & Piovano) O'Shea & Ochyra, Trop. Bryol. 18: 122. 2000. Basionym: *Isothecium kenyae* Tosco & Piovano, 1956. See O'Shea, B. J. & R. Ochyra, 2000.

KOPONONOBRYUM Arts, Lindbergia 26: 80. 2001.Type: *Kopononobryum bengalense* (Gangulee) Arts, 2001 (*Splachnobryum bengalense* Gangulee, 1974), holotype. Original placement: Splachnobryaceae. See Arts, T., 2001.

Kopononobryum bengalense (Gangulee) Arts, Lindbergia 26: 81. 2001. Basionym: *Splachnobryum bengalense* Gangulee, 1974. See Arts, T., 2001.

***LASIODONTIUM** Ochyra in G. Miehe & S. Miehe, Eric. Forest 168. 1994, invalid, no Latin description. Note: not in *IOM 93–95*. See Miehe, G. & S. Miehe, 1994.

****Lasiodontium mieheanum*** Ochyra in G. Miehe & S. Miehe, Eric. Forest 168. 1994, invalid, no Latin description. Note: not in *IOM 93–95*. See Miehe, G. & S. Miehe, 1994.

LEPTOPHASCUM (C. Müller) J. Guerra & Cano, J. Bryol. 22: 92. 2000. Basionym: *Phascum* sect. *Leptophascum* C. Müller, 1888. Original placement: Pottiaceae. See Guerra, J. & M. J. Cano, 2000.

Leptophascum leptophyllum (C. Müller) J. Guerra & Cano, J. Bryol. 22: 92. 2000. Basionym: *Phascum leptophyllum* C. Müller, 1888. See Guerra, J. & M. J. Cano, 2000.

LEPYRODON Hampe, 1865.

Lepyrodon alaris Dixon in Christophersen, Results Norweg. Sci. Exped. Tristan da Cunha 48: 38. 1960. Other use: *Myurium alaris* (Dixon in Christophersen) B. H. Allen, 1999.

Lepyrodon patagonicus (Cardot & Brotherus) B. H. Allen, Bryobrothera 5: 38. 1999. Basionym: *Lepyrodon tomentosus* var. *patagonicus* Cardot & Brotherus, 1923. See Allen, B., 1999.

Lepyrodon pseudolagurus B. H. Allen, Bryobrothera 5: 40. f. 17–18. 1999. Type: New Zealand. "Nelson, Flora Saddle-Mt. Arthur Hut track, North West Nelson Forest Reserve, 25 km SSW of Motueka, 41°11′S, 172°44′E, 950 m." *Streimann 51054*. Holotype: MO; isotypes: CBG, NY, S. Other indicated

distribution: Australia (Tasmania, Victoria), New Zealand (Campbell Island). See Allen, B., 1999.

Lepyrodon tomentosus (W. J. Hooker) Mitten, 1869.

Lepyrodon tomentosus var. ***patagonicus*** Cardot & Brotherus, Kongl. Svenska Vetenskapsakad. Handl. 63(10): 58. 1923. Other use: *Lepyrodon patagonicus* (Cardot & Brotherus) B. H. Allen, 1999.

LESKEA Hedwig, 1801.

Leskea contortula Mitten, J. Proc. Linn. Soc., Bot., Suppl. 2: 134. 1859. Other use: *Cyrto-hypnum contortulum* (Mitten) Wu Pan-cheng, Crosby & S. He, 1999, *Pelekium contortulum* (Mitten) Touw, 2001.

Leskea curvirostris Harvey in W. J. Hooker, Icon. Pl. 1: 20 f. 4. 1836. Other use: *Sematophyllum curvirostre* (Harvey in W. J. Hooker) B. C. Tan, 2000.

Leskea involvens Hedwig, Sp. Musc. Frond. 218. 1801. Other use: *Pelekium involvens* (Hedwig) Touw, 2001.

Leskea leptoclada Taylor, London J. Bot. 6: 339. 1847. Other use: *Pelekium leptocladum* (Taylor) Touw, 2001.

Leskea minuscula Mitten, J. Proc. Linn. Soc., Bot., Suppl. 2: 134. 1859. Other use: *Pelekium minusculum* (Mitten) Touw, 2001.

Leskea ramusculosa Mitten, J. Proc. Linn. Soc., Bot. 7: 161. 1863. Other use: *Pelekium ramusculosum* (Mitten) Touw, 2001.

MACROMITRIUM Bridel, 1819 [1818].

Macromitrium cancellatum Xiong Yuan-xin, Acta Bot. Yunnan. 22: 405. f. 1. 2000. Type: China. "Guizou [sic]. Suiyang, Wangcao, Guanghua, 28°06′N. 107°12′E. Altitude ca. 1150 m. On surface of rocks under forest." *Xiong Yuan-xin SY96011.* July 26, 1996. Holotype: GACP. See Xiong Yuan-xin, 2000.

***METZLERELLA** I. Hagen, Kongel. Norske Vidensk. Selsk. Skr. (Trondheim) 1914(1): 62. 1915, illegitimate, type of earlier name included (Article 52.1, Tokyo Code).

Metzlerella madagascariensis Thériot, Recueil Publ. Soc. Havraise Études Diverses 92: 13. 1926. Other use: *Metzleria madagascariensis* (Thériot) Frahm, 2000.

***METZLERIA** W. P. Schimper ex Milde, Bryol. Siles. 75. 1869, rejected against the homotypic *Atractylocarpus*. Correct name: *Atractylocarpus* Mitten, 1869. Type: *Metzleria alpina* W. P. Schimper ex Milde, 1869, holotype. Note: with the conservation of *Atractylocarpus*, *Metzleria* can no longer be used under the *Code*.

Metzleria comosa (Dixon) Frahm, Trop. Bryol. 18: 117. 2000. Basionym: *Atractylocarpus comosus* Dixon, 1934. See Frahm, J.-P., 2000b.

Metzleria madagascariensis (Thériot) Frahm, Trop. Bryol. 18: 117. 2000. Basionym: *Metzlerella madagascariensis* Thériot, 1926. See Frahm, J.-P., 2000b.

Metzleria nana (R. S. Williams) Frahm, Trop. Bryol. 18: 117. 2000. Basionym: *Atractylocarpus nanus* R. S. Williams, 1928. See Frahm, J.-P., 2000b.

Metzleria patagonica (Herzog & Thériot) Frahm, Trop. Bryol. 18: 117. 2000. Basionym: *Atractylocarpus patagonicus* Herzog & Thériot, 1933. See Frahm, J.-P., 2000b.

MICROBRYUM W. P. Schimper, 1860.

Microbryum piptocarpum (Durieu & Montagne in Montagne) J. Guerra & Cano, J. Bryol. 22: 92. 2000. Basionym: *Phascum piptocarpum* Durieu & Montagne in Montagne, 1856. See Guerra, J. & M. J. Cano, 2000.

MIELICHHOFERIA Nees & Hornschuch, 1831.

Mielichhoferia chlorocarpa Herzog, Hedwigia 74: 105. f. 10. 1934 [1935]. Syntypes: Bolivia. "An Felsen der Abra de San Benito (Prov. Cochabamba.), 3900 m." *Herzog 237*. Bolivia. "Curahuara." *C. Troll 59*. Note: not in *Index Muscorum*. See Herzog, T., 1934.

Mielichhoferia paroica A. J. Shaw & B. H. Allen in A. J. Shaw, B. H. Allen & W. R. Buck, Bryologist 101: 600. f. 1–8. 1998 [1999]. Type: Costa Rica. "San José.

Summit of Volcán Irazu, alt. 3400 m, on the ground." *Crosby 3638*. Feb 14, 1966. Holotype: MO; isotypes: F, USJ. See Shaw, A. J., B. Allen & W. R. Buck, 1998 [1999].

*MILDEELLA Limpricht, 1885, illegitimate, later homonym. Correct name: *Protobryum* J. Guerra & Cano, 2000

MITTENOTHAMNIUM Hennings, 1902, conserved name.

Mittenothamnium circinatum (Herzog) Ochyra, Fragm. Florist. Geobot. 44: 256. 1999. Basionym: *Hygrohypnum circinatum* Herzog, 1950. See Ochyra, R., 1999c.

Mittenothamnium pelichucense (R. S. Williams) Ochyra, Fragm. Florist. Geobot. 44: 256. 1999. Basionym: *Hygrohypnum pelichucense* R. S. Williams, 1909. See Ochyra, R., 1999c.

Mittenothamnium reduncum (W. P. Schimper ex Mitten) Ochyra, Fragm. Florist. Geobot. 44: 256. 1999. Basionym: *Ctenidium reduncum* W. P. Schimper ex Mitten, 1869. See Ochyra, R., 1999c.

Mittenothamnium robinsonii (H. Crum) Ochyra, Fragm. Florist. Geobot. 44: 257. 1999. Basionym: *Hygrohypnum robinsonii* H. Crum, 1985. See Ochyra, R., 1999c.

Mittenothamnium tequendamense (Herzog) Ochyra, Fragm. Florist. Geobot. 44: 256. 1999. Basionym: *Hygrohypnum tequendamense* Herzog, 1950. See Ochyra, R., 1999c.

Mittenothamnium tequendamense var. ***subfalcatum*** (Herzog) Ochyra, Fragm. Florist. Geobot. 44: 257. 1999. Basionym: *Hygrohypnum tequendamense* var. *subfalcatum* Herzog, 1950. See Ochyra, R., 1999c.

MITTHYRIDIUM H. Robinson, 1975.

Mitthyridium fasciculatum (W. J. Hooker & Greville) H. Robinson, 1975.

Mitthyridium fasciculatum subsp. ***cardotii*** (Fleischer) B. C. Tan & L. Ellis in L. Ellis & B. C. Tan, Bull. Nat. Hist. Mus. Lond. (Bot.) 29: 25. 1999. Basionym: *Thyridium cardotii* Fleischer, 1904. See Ellis, L. T. & B. C. Tan, 1999.

MONOCRYPHAEA P. Rao, Bryobrothera 7: 105. 2001.Type: *Monocryphaea ravenelii* (Austin) P. Rao, 2001 (*Cryphaea ravenelii* Austin, 1877), holotype. Original placement: Cryphaeaceae. See Rao, Pengcheng, 2001b.

Monocryphaea ravenelii (Austin) P. Rao, Bryobrothera 7: 105. 2001. Basionym: *Cryphaea ravenelii* Austin, 1877. See Rao, Pengcheng, 2001b.

†MUSCITES Brongniart, 1828.

†***Muscites amplexifolius*** Ottone & S. Archangelsky, Ameghiniana 38: 220. f. 2: a–d, 3: a–e. 2001. Type: Argentina. "Quebrada Honda, Cuesta de Panacán, Jáchal Department, San Juan province . . . shale from uppermost Guandacol Formation, Paganzo Group (Upper Carboniferous)." Palaeobotanical Collection, Department of Geological Sciences, University of Buenos Aires, Argentina. See Ottone, E. G. & S. Archangelsky, 2001.

†***Muscites confertus*** Göppert & Berendt, Bernstein 1(1): 112. pl. 6: f. 29–31. 1845. Other use: *Hypnodontopsis confertus* (Göppert & Berendt) Frahm, 2001.

†***Muscites pilifer*** Frahm, Hausknechtia Beih. 9: 131. f. 3–4. 1999. Type: Baltic amber, *Glink 2*. Glink collection. See Frahm, J.-P., 1999.

MYURIUM W. P. Schimper, 1860.

Myurium alaris (Dixon in Christophersen) B. H. Allen, Bryobrothera 5: 47. 1999. Basionym: *Lepyrodon alaris* Dixon in Christophersen, 1960. See Allen, B., 1999.

NECKERA Hedwig, 1801, conserved name.

Neckera assimilis C. Müller, Syn. Musc. Frond. 2: 92. 1850. Other use: *Felipponea assimilis* (C. Müller) O'Shea, 2001.

Neckera capillacea Griffith, Calcutta J. Nat. Hist. 3: 70. 1843 [1842], "*copillacea*." Other use: *Pylaisiadelpha capillacea* (Griffith) B. C. Tan & Jia Yu, 1999.

NECKEROPSIS Reichardt, 1870.

Neckeropsis undulata* (Hedwig) Kindberg ex J. A. Allen, Mosses Cascade Mount. 117. 1900, illegitimate, later homonym. Basionym: *Hypnum undulatum* Hedwig, 1801. Earlier name: *Neckeropsis undulata* (Hedwig) Reichardt, 1870. Note: not in *Index Muscorum*. See Allen, J. A., 1900.

NEOMEESIOIDEAE Matteri & Ochyra, Hausknechtia Beih. 9: 228. 1999. Type: *Neomeesia* Deguchi, 1983, holotype. Original placement: Meesiaceae. See Matteri, C. M. & R. Ochyra, 1999.

NEOPHOENIX Zander & During, Taxon 48: 657. f. 1. 1999.Type: *Neophoenix matoposensis* Zander & During, 1999, holotype. Original placement: Pottiaceae. See Zander, R. H. & H. J. During, 1999.

Neophoenix matoposensis Zander & During, Taxon 48: 657. f. 1. 1999. Type: Zimbabwe. "Cultivated from spores originating in Zimbabwe, Bulawayo Region, Rhodes Matopos National Park, Matopos Sandveld (Hazelside) Fire Plots experimental area, near Maleme (20°35′S, 28°30′E), in annually burnt plot." *During 98202*. Jan 29, 1997. Holotype: BUF; isotype: U. See Zander, R. H. & H. J. During, 1999.

OKAMURAEA Brotherus, 1906.

Okamuraea micrangia (C. Müller) Wang You-fang & Hu Ren-liang in Wang You-fang, Zhu Jun & Hu Ren-liang, Acta Phytotax. Sin. 38: 483. 2000. Basionym: *Brachythecium micrangium* C. Müller, 1896. See Wang You-fang, Jun Zhu & Hu Ren-Liang, 2000.

ORTHODONTIACEAE (Brotherus) Goffinet in W. R. Buck & Goffinet in A. J. Shaw & Goffinet, Bryoph. Biol. 104. 2000. Basionym: Orthodontioideae Brotherus, 1924. See Buck, W. R. & B. Goffinet, 2000.

ORTHODONTIOIDEAE Brotherus, Nat. Pflanzenfam. (ed. 2) 11: 347. 1924. Type: *Orthodontium* Schwägrichen, 1827. Other use: Orthodontiaceae (Brotherus) Goffinet in W. R. Buck & Goffinet in A. J. Shaw & Goffinet, 2000. Original placement: Bryaceae. See Brotherus, V. F., 1924.

ORTHOTRICHUM Hedwig, 1801.

Orthotrichum casasianum F. Lara, Garilleti & Mazimpaka in Mazimpaka et al., J. Bryol. 21: 47. f. 1–9, 11–12, 15–16. 1999. Type: Spain. "Álava, Luquiano, Bayas River, 590 m, UTM grid 30TWN1153, corticolous on *Sambucus nigra* L." *P. Heras s.n.* Oct 20, 1985. Holotype: VIT. Paratypes cited. See Mazimpaka, V., F. Lara, R. Garilleti, M. Infante & P. Heras, 1999.

Orthotrichum furcatum Otnyukova, Arctoa 10: 155. f. 1–8. 2001. Type: Russia. "Tuva Republic. Todginskaja Vallis, Kadish lacus, 52°36′ lat. bor., 97° long. orient., 1100 m alt., in rupium fissuris in littore meridionalis lacus." *T. N. Otnjukova s.n.* Sep 4, 1999. Holotype: KRF; isotype: MHA. See Otnyukova, T. N., 2001.

Orthotrichum handiense F. Lara, Garilleti & Mazimpaka in F. Lara et al., Bryologist 102: 619. f. 1–15. 1999 [2000]. Type: Spain. "Canary Islands. Fuerteventura. Pico de la Zarza, 760 m elev., UTM grid 28RES60, epiphyte on *Asteriscus sericeus*." *M. Brugués s.n.* May 1992. Holotype: BCB; isotypes: MA, Universidad Autónoma de Madrid. See Lara, F., V. Mazimpaka, R. Garilleti & M. Brugués, 1999 [2000].

Orthotrichum hispanicum F. Lara, Garilleti & Mazimpaka, J. Bryol. 22: 263. f. 1–19. 2000. Type: Spain. "Guadalajara, Armallones, Tajo river at Hundido de Armallones, 30TWL5314, 805 m, epiphyte on twigs of *Buxus sempervirens* L., *R. Garilleti & F. Lara s.n.* Jul 10, 1996. Holotype: MA. Paratypes cited. Note: previously invalid, no description, in XIII Simp. Bot. Criptog. Resum. 152. 1999. See Lara, F., R. Garilleti & V. Mazimpaka, 2000.

Orthotrichum iwatsukii Ignatov in Ignatov et al., Arctoa 10: 172. 2001. Replaced name: *Orthotrichum macounii* subsp. *japonicum* Iwatsuki, 1959. Blocking name: *Orthotrichum japonicum* Sullivant

& Lesquereux, 1859. See Ignatov, M. S., E. I. Ivanova, E. A. Ignatova & K. K. Krivoshapkiný, 2001.

Orthotrichum laxum Lewinsky-Haapasaari, Lindbergia 24: 29. f. 1–2. 1999. Type: China. "Qinghai Province, Maqin County, Jungun Naichong, between Dawu and Huang He, 34°38′50″N, 100°36′41″E. Valley with *Picea-Juniperus* woodland; on *Salix* by stream, alt. ca. 3585 m." *Long 26961.* Jul 10, 1997. Holotype: E; isotype: H, KUO, PE. See Lewinsky-Haapasaari, J., 1999a.

Orthotrichum macounii Austin, 1879.

Orthotrichum macounii subsp. ***japonicum*** Iwatsuki, J. Hattori Bot. Lab. 21: 420. f. 1. 1959. Other use: *Orthotrichum iwatsukii* Ignatov in Ignatov et al., 2001.

Orthotrichum paraguense Bescherelle, J. Bot. (Morot) 5: 254. 1891. Other use: *Sehnemobryum paraguense* (Bescherelle) Lewinsky-Haapasaari & Hedenäs, 1998 [1999].

Orthotrichum underwoodii F. Lara, Garilleti & Mazimpaka in Garilleti, F. Lara & Mazimpaka, Bryologist 104: 268. f. 1–19. 2001. Type: U.S.A. "California. Santa Clara Co., Santa Clara Mts., on trees." *L. G. Pringle s.n.* Jul 22, 1882. Holotype: NY. Paratype cited. See Garilleti, R., F. Lara & V. Mazimpaka, 2001.

Orthotrichum vermiferum Lewinsky-Haapasaari, Lindbergia 24: 33. f. 1. 1999. Type: China. "Qinghai Province, Huzhu County, Jiading Xiang, near Langshidant Village, Langshidanggou Valley, 36°55′23″N, 102°22′44″E; *Betula* woodland on valley slope; on *Ribes* twigs." *Long 27196e.* Jul 23, 1997. Holotype: E. Original placement: sect. *Diaphana*. See Lewinsky-Haapasaari, J., 1999b.

Orthotrichum vittii F. Lara, Garilleti & Mazimpaka in F. Lara et al., Bryologist 102: 53. f. 1–22. 1999. Type: Spain. "Madrid. Lozoya del Valle, sabinar de El Chaparral, ca. 1150 m elev., UTM grid 30TVL3634, on *Juniperus thurifera* trees." *R. Garilleti & F. Lara s.n.* Jun 2, 1966. Holotype: MA; isotype: ALTA, BC, MUB, NY, Universidad Autonoma de Madrid. See Lara, F., V. Mazimpaka, R. Garilleti & P. García-Zamoraý, 1999.

PALUDELLACEAE De Notaris, Atti Reale Univ. Genova 1: 486. 1869, "Paludellacei" Other use: Paludelloideae (De Notaris) Matteri & Ochyra, 1999.

PALUDELLOIDEAE (De Notaris) Matteri & Ochyra, Haussknechtia Beih. 9: 228. 1999. Basionym: Paludellaceae De Notaris, 1869. See Matteri, C. M. & R. Ochyra, 1999.

PALUSTRIELLA Ochyra, 1989.

Palustriella pluristratosa Stech & Frahm, Bot. Helv. 111: 146. f. 1–8. 2001. Type: Switzerland. "Valais, Finhaut SW Martigny, stream above the village in the subalpine belt, 1800 m alt., 46°05′N, 6°58′E." *J.-P. Frahm s.n.* Aug 17, 2000. Holotype: BONN. See Stech, M. & J.-P. Frahm, 2001.

PAPILLIDIOPSIS (Brotherus in Engler & Prantl) W. R. Buck & B. C. Tan, 1989 [1990].

Papillidiopsis stissophylla (Hampe & C. Müller) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 41. 1999. Basionym: *Hypnum stissophyllum* Hampe & C. Müller, 1851. See Tan, B. C. & Jia Yu, 1999.

PARALEUCOBRYUM (Lindberg ex Limpricht) Loeske, 1907.

Paraleucobryum schwarzii (W. P. Schimper) Gao Chien & Vitt in Gao Chien, Crosby & S. He, Moss Fl. China 1: 220. 1999. Basionym: *Campylopus schwarzii* W. P. Schimper, 1864. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

PELEKIUM Mitten, 1868, conserved name.

Pelekium bonianum (Bescherelle) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Thuidium bonianum* Bescherelle, 1887. See Touw, A., 2001a.

Pelekium campanulatum (Mitten) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Thuidium campanulatum* Mitten, 1869. See Touw, A., 2001a.

Pelekium chenagonii (C. Müller ex Renauld & Cardot) Touw, J. Hattori Bot. Lab. 90:

203. 2001. Basionym: *Thuidium chenagonii* C. Müller ex Renauld & Cardot, 1895. See Touw, A., 2001a.

Pelekium ciliatum (Mitten) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Thuidium ciliatum* Mitten, 1869. See Touw, A., 2001a.

Pelekium contortulum (Mitten) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Leskea contortula* Mitten, 1859. See Touw, A., 2001a.

Pelekium erosifolium (Zeng Shu-ying) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Thuidium erosifolium* Zeng Shu-ying, 1990. See Touw, A., 2001a.

Pelekium fuscatum (Bescherelle) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Thuidium fuscatum* Bescherelle, 1892. See Touw, A., 2001a.

Pelekium gratum (Palisot de Beauvois) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Hypnum gratum* Palisot de Beauvois, 1805. See Touw, A., 2001a.

****Pelekium haplohymenium*** (Harvey) Touw, J. Hattori Bot. Lab. 90: 203. 2001, illegitimate, type of earlier name included. Basionym: *Hypnum haplohymenium* Harvey, 1840. See Touw, A., 2001a.

Pelekium intricatum (Jaeger) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Thuidium intricatum* Jaeger, 1878. See Touw, A., 2001a.

Pelekium investe (Mitten) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Hypnum investe* Mitten, 1856. See Touw, A., 2001a.

Pelekium involvens (Hedwig) Touw, J. Hattori Bot. Lab. 90: 203. 2001. Basionym: *Leskea involvens* Hedwig, 1801. See Touw, A., 2001a.

Pelekium leptocladum (Taylor) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Leskea leptoclada* Taylor, 1847. See Touw, A., 2001a.

Pelekium minusculum (Mitten) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Leskea minuscula* Mitten, 1859. See Touw, A., 2001a.

Pelekium minutulum (Hedwig) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Hypnum minutulum* Hedwig, 1801. See Touw, A., 2001a.

Pelekium muricatulum (Hampe) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Hypnum muricatulum* Hampe, 1847. See Touw, A., 2001a.

Pelekium pygmaeum (W. P. Schimper in B.S.G.) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Thuidium pygmaeum* W. P. Schimper in B.S.G., 1852. See Touw, A., 2001a.

Pelekium ramosissimum (Dixon & E. B. Bartram) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Thuidium ramosissimum* Dixon & E. B. Bartram, 1933. See Touw, A., 2001a.

Pelekium ramusculosum (Mitten) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Leskea ramusculosa* Mitten, 1863. See Touw, A., 2001a.

Pelekium scabrosulum (Mitten) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Thuidium scabrosulum* Mitten, 1869. See Touw, A., 2001a.

Pelekium schistocalyx (C. Müller) Touw, J. Hattori Bot. Lab. 90: 204. 2001. Basionym: *Hypnum schistocalyx* C. Müller, 1851. See Touw, A., 2001a.

Pelekium siphotheca (C. Müller) Touw, J. Hattori Bot. Lab. 90: 205. 2001. Basionym: *Hypnum siphotheca* C. Müller, 1858. See Touw, A., 2001a.

Pelekium subpinnatum (Brotherus) Touw, J. Hattori Bot. Lab. 90: 205. 2001. Basionym: *Thuidium subpinnatum* Brotherus, 1895. See Touw, A., 2001a.

Pelekium synoicum (Touw in Touw & Falter-van den Haak) Touw, J. Hattori Bot. Lab. 90: 205. 2001. Basionym: *Thuidium synoicum* Touw in Touw & Falter-van den Haak, 1989. See Touw, A., 2001a.

Pelekium varians (Welwitsch & Duby in Duby) Touw, J. Hattori Bot. Lab. 90: 205. 2001. Basionym: *Thuidium varians* Welwitsch & Duby in Duby, 1872. See Touw, A., 2001a.

Pelekium versicolor (Hornschuch ex C. Müller) Touw, J. Hattori Bot. Lab. 90: 205. 2001. Basionym: *Hypnum versicolor* Hornschuch ex C. Müller, 1851. See Touw, A., 2001a.

Pelekium watanabei (Touw) Touw, J. Hattori Bot. Lab. 90: 205. 2001. Basionym: *Thuidium watanabei* Touw, 1993. See Touw, A., 2001a.

PHASCUM Hedwig, 1801.

Phascum sect. ***Leptophascum*** C. Müller, Flora 71: 7. 1888. Other use: *Leptophascum* (C. Müller) J. Guerra & Cano, 2000.

Phascum bryoides Dickson, Fasc. Pl. Crypt. Brit. 4: 3. pl. 10: 3. 1801. Other use: *Protobryum bryoides* (Dickson) J. Guerra & Cano, 2000.

Phascum cuynetii Bizot & Pierrot in Bizot, Dury & Pierrot, Rev. Bryol. Lichénol. 36: 506. f. 1–18. 1969 [1970]. Other use: *Aschisma cuynetii* (Bizot & Pierrot in Bizot, Dury & Pierrot) J. Guerra & Cano, 2000.

Phascum leptophyllum C. Müller, Flora 71: 6. 1888. Other use: *Leptophascum leptophyllum* (C. Müller) J. Guerra & Cano, 2000.

Phascum piptocarpum Durieu & Montagne in Montagne, Syll. Gen. Sp. Crypt. 51. 1856. Other use: *Microbryum piptocarpum* (Durieu & Montagne in Montagne) J. Guerra & Cano, 2000.

PHYLLODREPANIUM Crosby, 1970 [1971].

Phyllodrepanium falcifolium (Schwägrichen) Crosby, 1970 [1971].

Phyllodrepanium falcifolium var. ***duidense*** (R. S. Williams) Pursell & B. H. Allen, J. Hattori Bot. Lab. 87: 305. 1999. Basionym: *Drepanophyllum duidense* R. S. Williams, 1931. See Pursell, R. A. & B. Allen, 1999.

PHYSCOMITRIUM (Bridel) Bridel, 1827.

Physcomitrium phymatodeum Catcheside, Mosses South Australia 233. f. 131. 1980. Other use: *Entosthodon subnudus* var. *phymatodeus* (Catcheside) Fife & Seppelt, 2001.

PLAGIOMNIUM T. Koponen, 1968.

Plagiomnium undulatum (Hedwig) T. Koponen, 1968.

Plagiomnium undulatum var. ***madeirense*** T. Koponen & Sérgio, Cryptog. Bryol. 22: 14. f. 1. 2001. Type: Portugal. "Madeira Island, from Casa das Queimadas to Caldeirão Verde, CB2128, 900 m." *Sérgio & Fontinha 9441*. Jan 15, 1995. Holotype: LISU; isotypes: H, MADS. Paratypes cited. See Koponen, T. & C. Sérgio, 2001.

PLATYHYPNIDIUM Fleischer, 1923.

Platyhypnidium grolleanum Ochyra & Bednarek-Ochyra, Haussknechtia Beih. 9: 259. f. 1–2. 1999. Type: Czech Republic. "Montes Krkonoše, in saxis rivi Stříbný potok vallis Stříbná dolina prope pagum Černý Důl, ca 730 m." *Pilous 250*. Jun 1946. Holotype: KRAM; isotypes: BM, BP, BRA, BRNM, BRNU, OP, PRC, SLO. See Ochyra, R. & H. Bednarek-Ochyra, 1999a.

Platyhypnidium lusitanicum (W. P. Schimper) Ochyra & Bednarek-Ochyra, Haussknechtia Beih. 9: 263. 1999. Basionym: *Hypnum lusitanicum* W. P. Schimper, 1876. See Ochyra, R. & H. Bednarek-Ochyra, 1999a.

Platyhypnidium mutatum Ochyra & Vanderpoorten, J. Bryol. 21: 184. f. 1–3. 1999. Type: Germany. "Baden-Württemberg: Allerheiligens ca. 8 km N of Oppenau, alt. ca. 500 m, on granite rocks in waterfall." *Vanderpoorten 3602*. Mar 21, 1997. Holotype: KRAM; isotype: herb. Frahm. Paratypes cited. See Ochyra, R. & A. Vanderpoorten, 1999.

Platyhypnidium peruviense (R. S. Williams) Ochyra, Fragm. Florist. Geobot. 44: 257. 1999. Basionym: *Hygrohypnum peruviense* R. S. Williams, 1916. See Ochyra, R., 1999c.

Platyhypnidium torrenticola (Ochyra, C. Schmidt & Bültmann) Ochyra & Bednarek-Ochyra, Haussknechtia Beih. 9: 263. 1999. Basionym: *Gradsteinia torrenticola* Ochyra, C. Schmidt & Bültmann, 1998. See Ochyra, R. & H. Bednarek-Ochyra, 1999a.

Platyhypnidium validum (Herzog) Ochyra, Fragm. Florist. Geobot. 44: 257. 1999. Basionym: *Hygrohypnum validum* Herzog, 1916. See Ochyra, R., 1999c.

POHLIA Hedwig, 1801.

Pohlia annotina (Hedwig) Lindberg, 1879.

****Pohlia annotina*** var. ***bulbifera*** Wijk, Margadant & Florschütz, Regnum Veg. 17: 387 [Ind. Musc. 1: 387]. 1959, invalid, orthographic variant. Correct name: *Pohlia camptotrachela* var. *bulbifera* (Lamarck & A. P. de Candolle) Wijk & Margadant, 1959. Note: varietal named placed under the wrong specific epithet in *Index Muscorum*. See Wijk, R. van der, W. D. Margadant & P. A. Florschütz, 1959.

POLYTRICHASTRUM G. L. Smith, 1971.

Polytrichastrum sphaerothecium (Bescherelle) Frahm in W. Frey et al., Kleine Kryptogamenfl. (ed. 6) 4: 142. 1995. Basionym: *Pogonatum sphaerothecium* Bescherelle, 1893. Note: redundant combination in Schljakov, Novisti Syst. Nizš. Rast. 33: 197. 1999.

POTTIA Ehrhart ex Fürnrohr, 1829, conserved name.

Pottia gemmifera Herrnstadt & Heyn, Nova Hedwigia 69: 232. f. 2. 1999. Type: Israël. "Tet-She'an Valley, Sakhne (Gan HaShelosha) on alluvial soil." *Bilewsky 94a*. Holotype: HUJ. See Herrnstadt, I. & C. C. Heyn, 1999.

Pottia lorentzii C. Müller, Linnaea 42: 309. 1879. Other use: *Saitobryum lorentzii* (C. Müller) Ochyra, 1999.

POWELLIA Mitten, 1868 [1869].

Powellia integra (Dixon) Zanten in H. Akiyama & Zanten, Bryobrothera 5: 21. 1999. Basionym: *Racopilum integrum* Dixon, 1941. See Akiyama, H. & B. O. van Zanten, 1999.

PROTOBRYUM J. Guerra & Cano, J. Bryol. 22: 94. 2000.Replaced name: *Mildeella* Limpricht, 1885. Blocking name: *Mildella* Trevisan de Saint-Léon, 1876. See Guerra, J. & M. J. Cano, 2000.

Protobryum bryoides (Dickson) J. Guerra & Cano, J. Bryol. 22: 94. 2000. Basionym: *Phascum bryoides* Dickson, 1801. See Guerra, J. & M. J. Cano, 2000.

PSEUDOCHORISODONTIUM (Brotherus) Gao Chien et al. in Gao Chien, Crosby & S. He, Moss Fl. China 1: 220. 1999. Basionym: *Dicranum* subgen. *Pseudochorisodontium* Brotherus, 1924. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

Pseudochorisodontium conanenum (Gao Chien in Gao Chien & Zhang Guang-chu) Gao Chien in Gao Chien et al. in Gao Chien, Crosby & S. He, Moss Fl. China 1: 222. 1999. Basionym: *Dicranum conanenum* Gao Chien in Gao Chien & Zhang Guang-chu, 1979. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

Pseudochorisodontium gymnostomum (Mitten) Gao Chien et al. in Gao Chien, Crosby & S. He, Moss Fl. China 1: 223. 1999. Basionym: *Dicranum gymnostomum* Mitten, 1859. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

Pseudochorisodontium hokinense (Bescherelle) Gao Chien, Vitt & Fu Xing in Gao Chien, Crosby & S. He, Moss Fl. China 1: 224. 1999. Basionym: *Dicranum gymnostomum* var. *hokinense* Bescherelle, 1892. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

Pseudochorisodontium mamillosum (Gao Chien & Aur Zhi-wen) Gao Chien et al. in Gao Chien, Crosby & S. He, Moss Fl. China 1: 226. 1999. Basionym: *Dicranum mamillosum* Gao Chien & Aur Zhi-wen, 1980. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

Pseudochorisodontium ramosum (Gao Chien & Aur Zhi-wen) Gao Chien et al. in Gao Chien, Crosby & S. He, Moss Fl. China 1: 227. 1999. Basionym: *Dicranum ramosum* Gao Chien & Aur Zhi-wen, 1980. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

Pseudochorisodontium setschwanicum (Brotherus) Gao Chien et al. in Gao Chien, Crosby & S. He, Moss Fl. China 1: 229. 1999. Basionym: *Dicranum*

setschwanicum Brotherus, 1929. See Gao Chien, M. R. Crosby & S. He (editors), 1999.

PSEUDOCROSSIDIUM R. S. Williams, 1915.

Pseudocrossidium granulosum (Thériot) Churchill in Churchill, Griffin & J. Muñoz, Ruizia 17: 182. 2000. Basionym: *Barbula granulosa* Thériot, 1936. See Churchill, S. P., D. Griffin III & J. Muñoz, 2000.

PSEUDOLESKEOPSIS Brotherus, 1907.

Pseudoleskeopsis bollei (Brotherus & Geheeb in Geheeb & Herzog) P. Rao, Bryobrothera 7: 107. 2001. Basionym: *Cryphaea bollei* Brotherus & Geheeb in Geheeb & Herzog, 1910. See Rao, Pengcheng, 2001b.

PTYCHOMITRIUM Fürnrohr, 1829, conserved orthography, "*Pthychomitrium*."

Ptychomitrium angusticarpum Schiavone & Biasuso, Lilloa 39: 103. f. 1. 1997. Type: Argentina. "Departamento Chicligasta, Río Cochuna, 1700 m snm." *Schiavone & Biasuso 1142a*. Mar 30, 1992. Holotype: LIL. Other indicated distribution: Brazil. See Schiavone, M. M. & A. B. Biasuso, 1997.

Ptychomitrium mamillosum Guo Shui-liang, Cao Tong & Gao Chien, J. Bryol. 22: 237. f. 1–11. 2000. Type: China. "Sichuan, Ya-an, Baoxin, on rocks, 1100 m alt." *Li Qian 11497*. Holotype: IFP. See Guo Shui-liang, Cao Tong & Gao Chien, 2000.

Ptychomitrium yulongshanum Cao Tong & Guo Shui-liang, Bryologist 104: 303. f. 1–13. 2001. Type: China. "Yunnan. Yulong Shan, Wen Hai Mountain, above Camellia Temple, exposed ridge top; on dry volcanic rocks, 3300 m elev." *D. G. Long 18971*. Oct 9, 1990. Holotype: E. See Cao Tong & Guo Shui-lian, 2001.

Pylaisia Bruch & W. P. Schimper in B.S.G., 1851, conserved orthography, "*Pylaisaea*." Note: with the conservation of *Pylaisia*, the homotypic *Pylaisiella* can no longer be used under the *Code*.

Pylaisia nana Mitten, Trans. Linn. Soc. London, Bot., ser. 2, 3: 180. 1891. Other use: *Pylaisiella nana* (Mitten) Higuchi, 1999.

Pylaisia steerei (Ando & Higuchi) Ignatov in Ignatov et al., Arctoa 10: 174. 2001. Basionym: *Pylaisiella steerei* Ando & Higuchi, 1987. See Ignatov, M. S., E. I. Ivanova, E. A. Ignatova & K. K. Krivoshapkiný, 2001.

PYLAISIADELPHA Cardot, 1912.

Pylaisiadelpha capillacea (Griffith) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 42. 1999. Basionym: *Neckera capillacea* Griffith, 1843 [1842]. See Tan, B. C. & Jia Yu, 1999.

PYLAISIELLA Kindberg ex Grout, 1896. Note: with the conservation of *Pylaisia*, the homotypic *Pylaisiella* may not be used.

Pylaisiella nana (Mitten) Higuchi, Bryobrothera 5: 117. 1999. Basionym: *Pylaisia nana* Mitten, 1891. See Higuchi, M., 1999.

Pylaisiella steerei Ando & Higuchi, Mem. New York Bot. Gard. 45: 211. f. 1–34. 1987. Other use: *Pylaisia steerei* (Ando & Higuchi) Ignatov in Ignatov et al., 2001.

RACOMITRIUM Bridel, 1819 [1818].

Racomitrium aduncoides Bednarek-Ochyra, Fragm. Florist. Geobot. 44: 278. f. 1–3. 1999. Type: U.S.A. "Tennessee. Sevier Co.: Great Smoky Mountains National Park, Alumn Cave Creek, near Arch Rock, Mt. Le Conte." *Schofield 10585* [*Mosses of North America 870*]. Jul 25, 1959. Holotype: KRAM; isotypes: ALTA, BR, CANM, COLO, FLAS, MO, POZG, TENN. Other indicated distribution: U.S.A. (Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Vermont, Virginia). See Bednarek-Ochyra, H., 1999b.

Racomitrium norrisii Bednarek-Ochyra & Ochyra, Ann. Bot. Fenn. 37: 236. f. 1–3. 2000. Type: U.S.A. "California, El Dorado Co.: along South Fork of the American River at Carpenter Creek, 1300 m." *Norris 58449*. Apr 7, 1981. Holotype: UC; isotype: KRAM. Other indicated distribution: U.S.A. (Idaho).

See Bednarek-Ochyra, H. & R. Ochyra, 2000.

****Racomitrium pilosissimum*** Brotherus in Bednarek-Ochyra, Cryptog. Bryol. 20: 183. 1999, invalid, cited in synonymy. See Bednarek-Ochyra, H., 1999a.

Racomitrium ryszardii Bednarek-Ochyra, Cryptog. Bryol. 21: 276. f. 1–3. 2000. Type: U.S.A. "Alaska. Wrangell-Petersburg Co.: Mitkof Island, slopes near Crystal Lake, S of Petersburg, lat. 56°36′N, long. 132°50′W; altitude ca 60 m." *Worley, Schofield & Hamilton 8528*. Jun 22, 1968. Holotype: KRAM. Other indicated distribution: Canada (British Columbia), U.S.A. (Oregon, Washington). See Bednarek-Ochyra, H., 2000.

Racomitrium valdon-smithii Ochyra & Bednarek-Ochyra, Fragm. Florist. Geobot. 44: 211. f. 1. 1999. Type: South Africa. "Prince Edward Islands. Marion Island: halfway between Delta Kop and Bob Rand Peak, lat. 46°54′S, long. 37°45′E, elev. ca. 950 m." *Ochyra & Smith 738/99*. Apr 12, 1999. Holotype: PRE; isotype: KRAM. See Ochyra, R. & H. Bednarek-Ochyra, 1999b.

RACOPILUM Palisot de Beauvois, 1805.

Racopilum integrum Dixon, J. Bot. 79: 61. 1941. Other use: *Powellia integra* (Dixon) Zanten in H. Akiyama & Zanten, 1999.

Racopilum niutensis H. Akiyama & Zanten, Bryobrothera 5: 17. f. 1. 1999. Type: Indonesia. "Kalimantan Barat, Kabupaten Sambus, west slope of Gunung Niut, around Pos Ko, on boulder at more or less shaded place in a small valley in primeval montane forest, ca. 1300 m alt." *H. Akiyama B-31404*. Dec 18, 1991. Holotype: HYO; isotypes: BO, GRO, L. Paratypes cited. See Akiyama, H. & B. O. van Zanten, 1999.

RADULINA W. R. Buck & B. C. Tan, 1989 [1990].

Radulina hamata (Dozy & Molkenboer) W. R. Buck & B. C. Tan, 1989 [1990].

Radulina hamata var. ***ferriei*** (Cardot & Thériot) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 45. 1999. Basionym: *Trichosteleum ferriei* Cardot & Thériot, 1908. See Tan, B. C. & Jia Yu, 1999.

RHACOPILOPSIS Renauld & Cardot, 1900.

Rhacopilopsis variegata (Welwitsch & Duby) M. C. Watling & O'Shea, J. Bryol. 22: 214. 2000, "*variegatum*." Basionym: *Hypnum variegatum* Welwitsch & Duby, 1872. See Watling, M. C. & B. J. O'Shea, 2000.

RHAMPHIDIUM Mitten, 1869.

Rhamphidium rechingeri Baumgartner in K. H. Rechinger, Denkschr. Allg. Schweiz. Ges. Gesammtan Naturwiss. 105(2,1): 51. 1943. Type: Crete. "Chania: An überriesselten Schieferfelsen zwischen Skines und Nea Rumata, ca. 300 m." *Collector not cited 14,860*. May 28, 1943 [sic]. Note: treated as invalid in *Index Muscorum*.

RHYNCHOSTEGIUM Bruch & W. P. Schimper in B.S.G., 1852.

Rhynchostegium strongylense (Bottini) W. R. Buck & Privitera, Cryptog. Bryol. 1: 12. 1999. Basionym: *Barbella strongylensis* Bottini, 1907. See Buck, W. R. & M. Privitera, 1999.

ROSULABRYUM Spence, 1996.

Rosulabryum epiphyticum Spence & H. P. Ramsay, Telopea 8: 325. f. 1. 1999. Type: Australia. "New South Wales: epiphytic on orchids in pots at Macquarie University, originally from Port Macquarie area, North Coast (31°27′S, 152°55′E)." *A. J. Downing s.n.* Aug 8, 1991. Holotype: BRI; isotype: NSW. Other indicated distribution: Australia (Queensland). See Spence, J. R. & H. P. Ramsay, 1999.

Rosulabryum lamingtonicum Spence & H. P. Ramsay, Telopea 8: 328. f. 3. 1999. Type: Australia. "Queensland: Cedar Creek N.P., Tambourine Mtn (27°54′S, 153°11′E)." *A. Mertens 3*. Oct 16, 1988. Holotype: BRI; isotype: NSW. Other indicated distribution: Australia (New South Wales). See Spence, J. R. & H. P. Ramsay, 1999.

****Rosulabryum perlimbatum*** Spence & H. P. Ramsay, Telopea 8: 333. 1999, invalid,

basionym not cited. See Spence, J. R. & H. P. Ramsay, 1999.

Rosulabryum queenslandicum Spence & H. P. Ramsay, Telopea 8: 326. f. 2. 1999. Type: Australia. "Queensland: on dry shaded soil bank along track to Aljon Falls, Carnarvon Gorge National Park (25°02′S, 148°10′E)." *J. R. Spence 5167*. Jan 2, 1993. Holotype: BRI. Other indicated distribution: Australia (Northern Territory). See Spence, J. R. & H. P. Ramsay, 1999.

SAITOBRYUM Zander, Bryologist 100: 520. 1997 [1998].

Saitobryum lorentzii (C. Müller) Ochyra, Fragm. Florist. Geobot. 44: 255. 1999. Basionym: *Pottia lorentzii* C. Müller, 1879. See Ochyra, R., 1999c.

SANIONIA Loeske, 1907.

Sanionia uncinata (Hedwig) Loeske, 1907.

****Sanionia uncinata*** var. ***georgico-uncinata*** J. Putzke & A. B. Pereira, Antarctic Mosses 51. 2001, invalid, basionym not cited. See Putzke, J. & A. B. Pereira, 2001.

SCHISTIDIUM Bruch & W. P. Schimper in B.S.G., 1845, conserved name.

Schistidium halinae Ochyra, Ann. Bot. Fenn. 35: 268. f. 1. 1998 [1999]. Type: Antarctica. "South Shetland Islands, King George Island, Admiralty Bay, Puchalski Peak, lat. 62°10′S, long. 58°17′30″W, elev. 140 m, on dry, bare andesite rocks on a west-facing slope." *Ochyra 27aa/80*. Mar 16, 1980. Holotype: KRAM; isotypes: AAS, ALA, ALTA, B, BA, BM, BP, BR, C, CANM, CHR, COLO, DUIS, DUKE, F, FH, FLAS, G, GJO, GL, H, HIRO, HO, HSC, IFP, JE, KRAM, L, M, MEXU, MICH, MIN, MO, NAM, NFLD, NICH, NIPR, NSW, NY, PC, PE, PRE, S, TENN, TNS, TRH, U, UBC, US. See Ochyra, R., 1998 [1999].

Schistidium olivaceum (Herzog) Ochyra & J. Muñoz, J. Bryol. 22: 142. 2000. Basionym: *Grimmia olivacea* Herzog, 1916. See Ochyra, R. & J. Muñoz, 2000.

Schistidium readeri (Brotherus) Ochyra & J. Muñoz, J. Bryol. 22: 142. 2000. Basionym: *Grimmia readeri* Brotherus, 1902. See Ochyra, R. & J. Muñoz, 2000.

Schistidium rivulare (Bridel) Podpěra, 1911.

Schistidium rivulare var. ***subflexifolium*** (C. Müller) Fife, New Zealand J. Bot. 38: 197. 2000. Basionym: *Grimmia subflexifolia* C. Müller, 1898. See Fife, A. J., 2000.

Schistidium squamatulum (Herzog) Ochyra & J. Muñoz, J. Bryol. 22: 142. 2000. Basionym: *Grimmia squamatula* Herzog, 1916. See Ochyra, R. & J. Muñoz, 2000.

Schistidium yaulense (Brotherus) Ochyra & J. Muñoz, J. Bryol. 22: 142. 2000. Basionym: *Grimmia yaulensis* Brotherus, 1920. See Ochyra, R. & J. Muñoz, 2000.

SCHIZYMENIUM Harvey in W. J. Hooker, 1840.

Schizymenium shevockii A. J. Shaw, Syst. Bot. 25: 190. f. 1–9. 2000. Type: U.S.A. "California, Fresno Co., 10 km north of the intersection National Forest Rd. 9 and Trimmer-Balch Camp Rd. E of Trimmer on NF Rd. 9. On roadside rocks south of Hazlett Basin, 36°58′N, 119°13′W." *Shaw 9905*. Jul 19, 1998. Holotype: DUKE; isotypes: DUKE, MO, NY. Paratypes cited. See Shaw, A. J., 2000.

SCLEROPODIUM Bruch & W. P. Schimper in B.S.G., 1853.

Scleropodium apiculigerum (Lindberg & H. Arnell) Frahm in W. Frey et al., Kleine Kryptogamenfl. (ed. 6) 4: 294. 1995. Basionym: *Hypnum apiculigerum* Lindberg & H. Arnell, 1890. Note: not in *IOM 93–95*. See Frey, W., J.-P. Frahm, E. Fischer & W. Lobin, 1995.

SCOULERIA W. J. Hooker, 1829 [1830].

Scouleria aquatica W. J. Hooker in Drummond, 1828.

Scouleria aquatica var. ***pulcherrima*** (Brotherus) Kurbatova, Novosti Syst. Nizš. Rast. 32: 168. 1998. Basionym: *Scouleria pulcherrima* Brotherus, 1916. See Kurbatova, L. E., 1998.

SEHNEMOBRYUM Lewinsky-Haapasaari & Hedenäs, Bryologist 101: 549. 1998 [1999].Type: *Sehnemobryum paraguense* (Bescherelle) Lewinsky-Haapasaari & Hedenäs, 1998 [1999] (*Orthotrichum*

paraguense Bescherelle, 1891), holotype. Original placement: Orthotrichaceae. See Lewinsky-Haapasaari, J. & L. Hedenäs, 1998 [1999].

Sehnemobryum paraguense (Bescherelle) Lewinsky-Haapasaari & Hedenäs, Bryologist 101: 549. 1998 [1999]. Basionym: *Orthotrichum paraguense* Bescherelle, 1891.

SEMATOPHYLLUM Mitten, 1864.

Sematophyllum brasiliense (Herzog) Ochyra, Fragm. Florist. Geobot. 44: 258. 1999. Basionym: *Hygrohypnum brasiliense* Herzog, 1927. See Ochyra, R., 1999c.

Sematophyllum curvirostre (Harvey in W. J. Hooker) B. C. Tan, Hikobia 13: 192. 2000. Basionym: *Leskea curvirostris* Harvey in W. J. Hooker, 1836. See Tan, B. C., 2000b.

Sematophyllum falcifolium Fleischer, Hedwigia 44: 318. 1905. Other use: *Acroporium strepsiphyllum* var. *falcifolium* (Fleischer) B. C. Tan & Mohamed, 1999.

Sematophyllum steerei (A. J. Sharp) Ochyra, Fragm. Florist. Geobot. 44: 258. 1999. Basionym: *Hygrohypnum steerei* A. J. Sharp, 1978. See Ochyra, R., 1999c.

Sematophyllum subpinnatum (Bridel) Britton, 1918.

Sematophyllum subpinnatum fo. ***tristiculum*** (Mitten) B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 51. 1999. Basionym: *Stereodon tristiculus* Mitten, 1859. See Tan, B. C. & Jia Yu, 1999.

SPHAEROTHECIELLA Fleischer, 1914.

Sphaerotheciella koponenii P. Rao, Bryologist 103: 739. f. 1–16. 2000 [2001]. Type: China. "Hunan Prov. Sang-Zhi Co., Ba-Da-Gong-Shan, Liao-Ye-Wan. . . . 1370 m, 29°46′N, 101°03′E." *T. Koponen, S. Huttunen, S. Piippo & P.-c. Rao 55709*. Oct 7, 1998. Holotype: H. Paratype cited. See Rao, Pencheng, 2000 [2001].

Sphaerotheciella sinensis (E. B. Bartram) P. Rao, Ann. Bot. Fenn. 37: 55. 2000. Basionym: *Cryphaea sinensis* E. B. Bartram, 1935. See Rao, Pengcheng, 2000.

***SPHAGNOPHYTA** H. Crum, Struct. Divers. Bryoph. 6. 2001, invalid, no Latin description. Note: contrary to what Crum states in his footnote, the *Code* does require Latin descriptions or diagnoses for names of all ranks published after 1 January 1935; see Article 36.1 . See Crum, H., 2001a.

SPHAGNUM Linnaeus, 1753.

****Sphagnum austro-americanum*** H. Crum, Bryologist 98: 588. f. 9. 1995, illegitimate, later homonym (Article 53.1, Tokyo Code). Earlier name: *Sphagnum austro-americanum* H. Crum, 1993. Other use: *Sphagnum diblastoides* H. Crum, 2001.

Sphagnum breedlovei H. Crum, Contr. Univ. Michigan Herb. 23: 113. f. 3: f–i. 2001. Type: Mexico. "Chiapas: Mpio. Motozintla de Mendoza, near summit of Cerro Mozotal, on rock, 2750 m." *D. E. Breedlove & B. Bartholomew 55854*. Nov 24, 1981. Holotype: MICH; isotype: MO. Original placement: sect. *Acutifolia*. See Crum, H., 2001b.

Sphagnum crispatum H. Crum, Contr. Univ. Michigan Herb. 23: 108. f. 1: e–g. 2001. Type: Peru. "Cajamarca: Hualgayoc, Las Lagunas to the west of Cajamaraca [sic], 07°10′S, 78°15′W, 3900 m." *P. Hegewald & E. Hegewald 6213*. May 25, 1973. Holotype: MICH; isotype: MO. Original placement: sect *Cuspidata*. See Crum, H., 2001b.

Sphagnum diblastoides H. Crum, Contr. Univ. Michigan Herb. 23: 114. 2001. Replaced name: *Sphagnum austro-americanum* H. Crum, 1995. Blocking name: *Sphagnum austro-americanum* H. Crum, 1993. See Crum, H., 2001b.

Sphagnum ehyalinum A. J. Shaw & Goffinet, Bryologist 103: 369. f. 7–17. 2000. Type: Chile. "Magellanes [sic]. Province of Magellanes [sic]. Brunswick Peninsula, W of Punta Arenas, along road to Cerro Mirado (Reserva Forestal Magallanes, about 500 m before junction with road to Andino. . . 53°S, 71°15′W . .

. ." *Goffinet 5782*. Nov 4, 1998. Holotype: DUKE, isotypes: HIP, MICH. Original placement: sect. *Cuspidata*. See Shaw, A. J. & B. Goffinet, 2000.

Sphagnum fuscovinosum Seppelt & H. Crum, Contr. Univ. Michigan Herb. 22: 132. f. 1–10. 1999. Type: Australia. "Tasmania. Mt. Field National Park, Tarn Shelf, 42°41′S, 146°35′E." *P. J. Dalton 91.2*. May 21, 1991. Holotype: HO; isotype: CHR, MICH, herb. Dalton. Paratypes cited. See Seppelt, R. D. & H. Crum, 1999.

Sphagnum hegewaldii H. Crum, Contr. Univ. Michigan Herb. 23: 110. f. 3: a–e. 2001. Type: Peru. "Amazonas: Chachapoyas District, Las Palmas, zw. Balsas u. Leimemba, 06°46′S, 77°49′W, on soil. 3000 m." *P. Hegewald & E. Hegewald 7007*. Aug 31, 1973. Holotype: MICH; isotype: MO. Original placement: sect. *Subsecunda*. See Crum, H., 2001b.

Sphagnum lapazense H. Crum, Contr. Univ. Michigan Herb. 23: 107. f. 1: a–d. 2001. Type: Bolivia. "La Paz: Nor Yungas, trail by construction camp, N on Bolivia 1 from La Paz to Nor Yungas, 16°16′89″S, 67°50′89″W, under large rock overhang with running water, 3100–3300 m." *M. J. Price, S. P. Churchill & Z. Magombo 1236*. Nov 12, 1999. Holotype: MICH; isotype: MO. Paratypes cited. Original placement: sect. *Sphagnum*. See Crum, H., 2001b.

Sphagnum leonii H. Crum, Pabstia 5(2): 1. f. a–g. 1994. Type: Brazil. "Estado Minas Gerais, Parque Estadual do Brigadeiro, Serra da Araponga, Fazenda Neblina, 20°43′S, 42°29′W, 1300 m." *L. S. Leoni 2170*. Mar 25, 1993. Holotype: GFJP; isotype: CEPEC, MICH, NY, RB, SP. Note: not in *IOM 93–95*. See Crum, H., 1994.

Sphagnum lojense H. Crum, Contr. Univ. Michigan Herb. 23: 112. 2001. Type: Ecuador. "Loja: Spring bog, on Ona-Saraguro road ca. 3 km S of Carboncillo, 03°S, 79°11′W, 3000 m." *S. Laegaard 18703B*. Apr 11, 1998. Holotype: MO. Paratype cited. Original placement: sect. *Subsecunda*. See Crum, H., 2001b.

Sphagnum luetzelburgii Paul ex H. Crum, Contr. Univ. Michigan Herb. 23: 109. f. 1: h–k. 2001. Type: Barzil. "Rio de Janeiro: Serra dos Orgãos, Schlucht auf der Südseite des Morro Assu." *Ph. von Luetzelburg 7012*. Aug 1915. Holotype: MICH; isotype: M. Original placement: sect. *Subsecunda*. See Crum, H., 2001b.

Sphagnum noryungasense H. Crum, Contr. Univ. Michigan Herb. 23: 110. f. 2: f–k. 2001. Type: Bolivia. "La Paz: Nor Yungas, trail by construction camp N on Bolivia 1 from La Paz to Nor Yungas, 16°16′89″S, 67°50′89″W, secondary humid montane forest, under large rock overhang with running water, 3100–3300 m." *M. J. Price, S. P Churchill & Z. Magombo 12347* [sic, isotype in MO is *1237*; cf. collection numbers for e.g. *S. lapazense* and *S. priceae*]. Nov 12, 1999. Holotype: MICH; isotype: MO. Original placement: sect. *Subsecunda*. See Crum, H., 2001b.

****Sphagnum paulianum*** H. Crum, Contr. Univ. Michigan Herb. 23: 114. 2001, illegitimate, superfluous. Note: the earlier "homonym" cited is invalid and therefore does not block the later "replaced" name. See Crum, H., 2001b.

Sphagnum priceae H. Crum, Contr. Univ. Michigan Herb. 23: 114. f. 2: a–e. 2001. Type: Bolivia. "La Paz: Nor Yungas, trail by construction camp, N on Bolivia 1 from La Paz to Nor Yungas, 16°16′89″S, 67°50′89″W, secondary, humid forest, in clump at edge of trail, 3100–3300 m." *M. J. Price, S. P. Churchill & Z. Magombo 1268*. Nov 12, 1999. Holotype: MICH; isotype: MO. See Crum, H., 2001b.

SPLACHNOBRYUM C. Müller, 1869.

Splachnobryum bengalense Gangulee, Mosses E. India 4: 865. f. 412. 1974. Other use: *Koponobryum bengalense* (Gangulee) Arts, 2001.

Splachnobryum crassinervium Arts, Lindbergia 26: 86. f. 7. 2001. Type: Norfolk Island. "Philip Island, Red road valley, barren hillside of dry creek, alt.

60 m." *H. Streimann 32255*. Dec 4, 1984. Holotype: CANB. Paratypes cited. See Arts, T., 2001.

SPLACHNUM Hedwig, 1801.

Splachnum sphaericum Hedwig, 1801.

Splachnum sphaericum var. ***elongatum*** Drummond, Musci Amer., Brit. N. Amer. 36. 1828. Type: Canada. "Mountain woods." [Thomas Drummond] *Musci Americani, Brit. N. Amer. 36*. 1825–1827. Note: not in *Index Muscorum*. See Drummond, T., 1828.

***STEREODON** Mitten, 1859, illegitimate, type of earlier name included.

Stereodon micans Mitten, J. Proc. Linn. Soc., Bot., Suppl. 2: 114. 1859. Replaced name: *Hypnum micans* Wilson in W. J. Hooker, 1833. Blocking name: *Hypnum micans* Swartz, 1829. Other use: *Hageniella micans* (Mitten) B. C. Tan & Jia Yu, 1999.

Stereodon tristículus Mitten, J. Proc. Linn. Soc., Bot., Suppl. 2: 102. 1859. Other use: *Sematophyllum subpinnatum* fo. *tristículum* (Mitten) B. C. Tan & Jia Yu, 1999.

SYNTRICHIA Bridel, 1801.

Syntrichia densa (Velenovsky) Frahm in Frahm & M. T. Gallego, J. Bryol. 23: 120. 2001. Basionym: *Tortula ruralis* var. *densa* Velenovsky, 1897. See Frahm, J.-P. & M. T. Gallego, 2001.

Syntrichia glabra Frahm & M. T. Gallego, J. Bryol. 23: 119. f. 1–2: a–d. 2001. Type: Germany. "Rheinland-Pfalz Kreis Kreuznach, nature preserve Trollmühle north of Dorsheim, ca. 200 m alt., W-exposed open rocks of basic breccia." *Frahm 3695*. Dec 4, 1999. Holotype: BONN. Paratypes cited. See Frahm, J.-P. & M. T. Gallego, 2001.

Syntrichia minor (Bizot) M. T. Gallego et al., Bryologist 103: 376. 2000. Basionym: *Tortula papillosissima* var. *minor* Bizot, 1954. See Gallego, M. T., J. Guerra, M. J. Cano, R. M. Ros & M. C. Sánchez-Moya, 2000.

SYRRHOPODON Schwägrichen, 1824.

Syrrhopodon hongkongensis Zhang Li in Zhang Li, Corlett & Chau, Bryologist 102: 122. f. 1–12. 1999. Type: China. "Hong Kong. New Territories, Sheung Wo Hang Fung Shui Wood, on tree trunk in forest, 160 m." *Zhang 1079*. Holotype: IBSC; isotype: HKU, KFBG, LAF. Paratypes cited. See Zhang, L., R. T. Corlett & L. Chau, 1999.

TAYLORIA W. J. Hooker, 1816.

Tayloria rudimenta Bai Xue-liang & B. C. Tan, Cryptog. Bryol. 21: 3. f. 1–10. 2000. Type: China. "Ningxia Huizu Atonomous Region, south slope of Mt. Helan, Suyuchous (38°48′N, 105°54′E), 2050 m elev., on rich old goat dungs over boulder in *Ulmus glaucescens* forest." *X.-L. Bai 130*. Jul 21, 1996. Holotype: HIMC. See Bai Xue-liang & B. C. Tan, 2000.

***THAMNIUM** W. P. Schimper in B.S.G., 1852, illegitimate, later homonym.

Thamnium maderense Kindberg, Hedwigia 41: 216. 1902. Other use: *Thamnobryum alopecurum* var. *maderense* (Kindberg) Stech, Ros & O. Werner, 2001.

THAMNOBRYUM Nieuwland, 1917.

Thamnobryum alopecurum (Hedwig) Nieuwland ex Gangulee, 1976.

Thamnobryum alopecurum var. ***maderense*** (Kindberg) Stech, Ros & O. Werner, Nova Hedwigia 72: 256. 2001. Basionym: *Thamnium maderense* Kindberg, 1902. See Stech, M., R. M. Ros & O. Werner, 2001.

THUIDIUM Bruch & W. P. Schimper in B.S.G., 1852.

Thuidium bifarium Bosch & Sande Lacoste, Bryol. Jav. 2: 123. pl. 226. 1865. Other use: *Aequatoriella bifaria* (Bosch & Sande Lacoste) Touw, 2001.

Thuidium bonianum Bescherelle, Bull. Soc. Bot. France 34: 98. 1887. Other use: *Pelekium bonianum* (Bescherelle) Touw, 2001.

Thuidium campanulatum Mitten, J. Linn. Soc., Bot. 12: 574. 1869. Other use: *Pelekium campanulatum* (Mitten) Touw, 2001.

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use: *Pelekium chenagonii* (C. Müller ex Renauld & Cardot) Touw, 2001.

Thuidium ciliatum Mitten, J. Linn. Soc., Bot. 12: 576. 1869. Other use: *Pelekium ciliatum* (Mitten) Touw, 2001.

Thuidium erosifolium Zeng Shu-ying, Guihaia 10: 105. pl. 1. 1990. Other use: *Pelekium erosifolium* (Zeng Shu-ying) Touw, 2001.

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Thuidium intricatum Jaeger, Ber. Thätigk. St. Gallischen Naturwiss. Ges. 1876–77: 251 (Gen. Sp. Musc. 2: 317). 1878. Replaced name: *Leskea intricata* Mitten, 1863. Blocking name: *Leskea intricata* C. J. Hartman, 1849. Other use: *Pelekium intricatum* (Jaeger) Touw, 2001.

Thuidium kiasense R. S. Williams, Bull. New York Bot. Gard. 8(31): 363. 1914. Other use: *Indothuidium kiasense* (R. S. Williams) Touw, 2001.

Thuidium orientale Mitten ex Dixon, J. Bot. 51: 329. 1913. Other use: *Thuidium pristocalyx* var. *orientale* (Mitten ex Dixon) Touw, 2001.

Thuidium pristocalyx (C. Müller) Jaeger, 1878.

Thuidium pristocalyx var. ***orientale*** (Mitten ex Dixon) Touw, J. Hattori Bot. Lab. 91: 47. 2001. Basionym: *Thuidium orientale* Mitten ex Dixon, 1913. See Touw, A., 2001b.

Thuidium pristocalyx var. ***samoanum*** (Mitten) Touw, J. Hattori Bot. Lab. 91: 41. 2001. Basionym: *Thuidium samoanum* Mitten, 1868. See Touw, A., 2001b.

Thuidium pseudoglaucinum Touw, J. Hattori Bot. Lab. 90: 205. 2001. Type: Thailand. "Payap, Doi (Mt.) Chiengdao, 1500 m, evergreen forest, on tree branch." *A. Touw 9048*. Holotype: L; isotypes: BM, NY, US. See Touw, A., 2001a.

Thuidium pygmaeum W. P. Schimper in B.S.G., Bryol. Eur. 5: 162 (fasc. 49–51. Monogr. 6). 1852. Other use: *Pelekium pygmaeum* (W. P. Schimper in B.S.G.) Touw, 2001.

Thuidium ramosissimum Dixon & E. B. Bartram, Occas. Pap. Bernice Pauahi Bishop Mus. 10(10): 21. f. 9. 1933. Other use: *Pelekium ramosissimum* (Dixon & E. B. Bartram) Touw, 2001.

Thuidium sachalinense Lindberg, Contr. Fl. Crypt. As. 244. 1872, "*sachalinensis*." Other use: *Echinophyllum sachalinensis* (Lindberg) T. J. O'Brien in T. J. O'Brien & D. G. Horton, 2000.

Thuidium samoanum Mitten, J. Linn. Soc., Bot. 10: 186. 1868. Other use: *Thuidium pristocalyx* var. *samoanum* (Mitten) Touw, 2001.

Thuidium scabrosulum Mitten, J. Linn. Soc., Bot. 12: 574. 1869. Other use: *Pelekium scabrosulum* (Mitten) Touw, 2001.

Thuidium subpinnatum Brotherus, Bih. Kongl. Svenska Vetensk.-Akad. Handl. 21 Afd. 3(3): 66. 1895. Other use: *Pelekium subpinnatum* (Brotherus) Touw, 2001.

Thuidium synoicum Touw in Touw & Falter-van den Haak, J. Hattori Bot. Lab. 67: 47. f. 12: b, 15. 1989. Other use: *Pelekium synoicum* (Touw in Touw & Falter-van den Haak) Touw, 2001.

Thuidium unipinnatum Fang Yan-ming & T. Koponen, Bryobrothera 6: 38. f. 17–18. 2001. Type: China. "Yunnan Prov., Lijiang Co., km 25 at Lijiang-Bai-Chang highway (18 km SW of Lijiang). . . . alt. 2980 m, 26°47′N, 100°05′E." *T. Koponen 42694*. Holotype: H. Paratypes cited. Other use: *Cyrto-hypnum unipinnatum* (Fang Yan-ming & T. Koponen) W. R. Buck, 2001. See Fang, Yan-Ming & T. Koponen, 2001.

Thuidium varians Welwitsch & Duby in Duby, Mém. Soc. Phys. Genève 21: 440. pl. 5: f. 3. 1872. Other use: *Pelekium varians* (Welwitsch & Duby in Duby) Touw, 2001.

Thuidium vestitissimum Bescherelle, Ann. Sci. Nat. Bot., sér. 7, 15: 79. 1892. Other

use: *Bryochenea vestitissima* (Bescherelle) Touw, 2001.

Thuidium watanabei Touw, J. Hattori Bot. Lab. 74: 200. f. 3. 1993. Other use: *Pelekium watanabei* (Touw) Touw, 2001.

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Thyridium cardotii Fleischer, Musci Buitenzorg 1: 228. f. 34. 1904, "*cardoti*." Other use: *Mitthyridium fasciculatum* subsp. *cardotii* (Fleischer) B. C. Tan & L. Ellis in L. Ellis & B. C. Tan, 1999.

TIMOTIMIUS W. R. Buck, Bryobrothera 5: 77. 1999.Type: *Timotimius titanotus* W. R. Buck, 1999, holotype. Original placement: Sematophyllaceae. See Buck, W. R., 1999.

Timotimius titanotus W. R. Buck, Bryobrothera 5: 77. f. 1. 1999. Type: Ecuador. "Pichincha, Cordillera Occidental, W slope, Quito-San Miguel de los Bancos road, 15 km W of Tandayapi in remnant cloud forest, ca. 00°01′N, 78°40′W, 7700 ft. [2350 m]." *William C. Steere 27023*. Nov 3, 1983. Holotype: NY; isotypes: H, MO. See Buck, W. R., 1999.

TORTULA Hedwig, 1801, conserved name.

Tortula papillosissima (Coppey) Brotherus, 1909.

Tortula papillosissima var. ***minor*** Bizot, Rev. Bryol. Lichénol. 23: 268. 1954. Other use: *Syntrichia minor* (Bizot) M. T. Gallego et al., 2000.

Tortula ruralis (Hedwig) P. G. Gärtner, B. Meyer & Scherbius, 1802.

Tortula ruralis var. ***densa*** Velenovsky, Rozpr. České Akad. Věd, Tř. 2, Vědy Mat. Přír. 6(6): 166. 1897. Other use: *Syntrichia densa* (Velenovsky) Frahm in Frahm & M. T. Gallego, 2001.

TRACHYCYSTIS Lindberg, 1868.

†***Trachycystis obtusus*** Frahm, Nova Hedwigia 72: 280. f. 12, 18. 2001. Type: Baltic amber. "Sammlung [H. W.] Hoffeins Nr. 1157/1," Hamburg. See Frahm, J.-P., 2001a.

TRICHOSTELEUM Mitten, 1868.

Trichosteleum ferriei Cardot & Thériot, Bull. Acad. Int. Géogr. Bot. 18: 251. 1908. Other use: *Radulina hamata* var. *ferriei* (Cardot & Thériot) B. C. Tan & Jia Yu, 1999.

TRICHOSTOMUM Bruch, 1829, conserved name.

Trichostomum armatum Thériot & Trabut, Bull. Soc. Hist. Nat. Afrique N. 22: 160. f. 2. 1931. Other use: *Weissia condensa* var. *armata* (Thériot & Trabut) Cano, Ros & J. Guerra, 2000.

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Trigonodictyon indicum Dixon & Potier de la Varde, Ann. Cryptog. Exot. 1: 40. f. 3. 1928. Other use: *Grimmia indica* (Dixon & Potier de la Varde) Goffinet & Greven, 2000.

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Unclejackia crispifolia (E. B. Bartram) Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 43. 1999. Basionym: *Chaetomitrium crispifolium* E. B. Bartram, 1953. See Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

Unclejackia longisetula (E. B. Bartram) Ignatov, T. Koponen & Norris, Acta Bot. Fenn. 165: 41. 1999. Basionym: *Chaetomitrium longisetulum* E. B. Bartram, 1942. See Ignatov, M. S., T. Koponen & D. H. Norris, 1999.

VERRUCIDENS Cardot, 1908.

Verrucidens macrosporus Reimers, Notizbl. Bot. Gart. Berlin-Dahlem 13: 48. 1936. Other use: *Dicranoweisia macrospora* (Reimers) Ochyra, 1999.

VOITIA Hornschuch, 1818.

Voitia grandis D. G. Long, Bryobrothera 5: 134. f. 1. 1999. Type: China. "Yunnan

Province, Diqing Prefecture, Da Xue Shan (Big Now Mountain) N of Geza, large valley 5 km west of pass, 28°34′N, 99°47′E, stony limestone valley floor, on dung, 4410 m alt." *D. G. Long 23853*. May 29, 1993. Holotype: E; isotypes: H, KUN, NY, PE. Paratypes cited. See Long, D. G., 1999.

WARBURGIELLA C. Müller ex Brotherus, 1900.

Warburgiella celebensis (Dixon) B. C. Tan, J. Hattori Bot. Lab. 89: 177. 2000. Basionym: *Brotherella celebensis* Dixon, 1934. See Tan, B. C., 2000a.

WARNSTORFIA Loeske, 1907.

Warnstorfia fontinaliopsis (C. Müller) Ochyra in Ochyra & Matteri, Fl. Criptog. Tierra del Fuego 14(10): 72. 2001. Basionym: *Hypnum fontinaliopsis* C. Müller, 1883. See Ochyra, R. & C. M. Matteri, 2001.

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Weissia condensa var. ***armata*** (Thériot & Trabut) Cano, Ros & J. Guerra, J. Bryol. 22: 271. 2000. Basionym: *Trichostomum armatum* Thériot & Trabut, 1931. See Cano, M. J., R. M. Ros & J. Guerra, 2000.

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Wijkia hornschuchii (Fleischer) H. Crum, 1971.

Wijkia hornschuchii var. ***acutifolia*** B. C. Tan & Jia Yu, J. Hattori Bot. Lab. 86: 61. 1999. Type: China. "Guangxi Province, Xingan Co., Mt. Miaoer, on thin soil over rock." *Collecting Team 1626*. Sep 15, 1974. Holotype: IBSC; isotype: FH. Paratype cited. See Tan, B. C. & Jia Yu, 1999.

ZYGODON W. J. Hooker & Taylor, 1818.

Zygodon conoideus (Dickson) W. J. Hooker & Taylor, 1818.

Zygodon conoideus var. ***lingulatus*** S. R. Edwards, J. Bryol. 22: 41. 2000. Type: United Kingdom. "On *Quercus cerris*, west side of Smallbrook Valley, Thursley, Surrey." *S. R. E[dwards] 3638*. Apr 25, 1998. Holotype: MANCH; isotype: herb. R. C. Stern. See Edwards, S. R., E. Sheffield & R. C. Stern, 2000.

Zygodon longicellularis Griffin, Cryptog. Bryol. Lichénol. 11: 163. 1990. Type: Venezuela. "Estado Barinas, páramo de Santo Cristo, 3,600–3,750 m." *Griffin & Diaz M. PV-132*. Holotype: MERF; isotypes: FLAS, NY. Note: misspelled in *IOM 90–93* as "*longicelluaris*." See Griffin, D., III, 1990.

Zygodon sibiricus Ignatov et al., Arctoa 8: 59. f. 1–12. 1999. Type: Russia. "Khabarovsk Territory, Verkhnebureinskij Distr., Bureinskij State Reserve, Levaya Bureya River near Kuraigagna Creek mouth. 51°58′N, 134°53′E, 840 m alt." *Ignatov 97-1256*. Aug 21, 1997. Holotype: MHA. Paratypes cited. See Ignatov, M. S., E. A. Ignatova, Z. Iwatsuki & B. C. Tan, 1999.

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Allen, J. A. — John Alpheus Allen, 1863–1916
Archangelsky, S. — Sergio Archangelsky, 1931–
Arts — Theo Albert Arts, 1942–2000
Aur Zhi-wen — Aur Zhi-wen, 1932–
Bai Xue-liang — Bai Xue (Xie)-liang, 1950–
Banu-Fattah — Khurshida Banu-Fattah, 1943–
Bednarek-Ochyra — Halina Krysfyroi Bednarek-Ochyra, 1959–
Beever — Jessica Eleanor Beever, 1946–
Berendt — Georg Carl Berendt, 1790–1850
Biasuso — Amalia Beatríz Biasuso, 1962–
Brullo — Salvatore Brullo, 1947–
Buchanan, A. M. — A. M. Buchanan, 1944–
Bültmann — Helga Bültmann, fl. 1998
Calabrese — Graciela Mabel Calabrese, 1960–
Cano — María Jesús Cano, 1967–
Catcheside — David Guthrie Catcheside, 1907–1994
Chau — Lawrence K. C. Chau, 1961–
Chevalier, A. — Auguste Jean Baptiste Chevalier, 1873–1956
Christophersen — Erling Christophersen, 1898–
Clark, J. R. — John R. Clark, 1974–
Corlett — Richard T. Corlett, fl. 1999
Crum, H. — Howard Alvin Crum, 1922–2002
Crundwell — Alan Cyril Crundwell, 1923–2000
Dirkse — Gerardus Martinus Dirkse, 1946–
Durieu — Michel Charles Durieu de Maisonneuve, 1796–1878
Engelmark — Fred Thor-Björn Engelmark, 1947–
Fang Yan-ming — Fang Yan-ming, fl. 2001
Fischer, Eb. — Eberhard Fischer, fl. 1989
Fu Xing — Fu Xing, fl. 1999
Gallego, M. T. — María Teresa Gallego, 1972–
García-Zamora — Pedro García-Zamora, fl. 1999
Garilleti — Ricardo Garilleti, 1963–
Giacomini — Valerio Giacomini, 1914–1982
Goffinet — Bernard Goffinet, 1966–
Göppert — Johann Heinrich Robert Göppert, 1800–1884
Greven — Henk C. Greven, 1936–
Guo Shui-liang — Guo Shui-liang, fl. 2000
Hadiuzzaman — Syed Hadiuzzaman, fl. 1997
Hastings — Ross I. Hastings, 1956–
He, S. — Si He, 1959–
Heras — Patxi Heras, 1958–
Heyn — Chaia Clara Heyn, 1924–1998
Hobkirk — Charles Codrington Pressick Hobkirk, 1837–1902
Ignatov — Mikhail (Misha) S. Ignatov, 1956–
Ignatova — Elena Anatol'evna Ignatova, 1956–
Infante — Marta Infante, 1964–
Ivanova, E. I. — Elena Ilyinichna Ivanova, 1966–
Jia Yu — Jia Yu, 1966–
Jiménez, J. A. — Juan A. Jiménez, fl. 2001
Jolyclerc — Nicolas Marie Thérèse Jolyclerc, 1746–1817
Jones, G. N. — George Neville Jones, 1903–1970
Kiguchi — Hiroshi Kiguchi, 1955–
Klazenga — Niels Klazenga, 1969–
Klebs — Georg Albrecht Klebs, 1857–1918
Krivoshapkin — Konstantin Konstantinovich Krivoshapkin, 1970–
Kurbatova — Ljubov Evgenjevna Kurbatova, 1973–
Lara, F. — Francisco Lara, 1963–
Lewinsky — Jette Lewinsky, 1948–1998
Lewinsky-Haapasaari — Jette Lewinsky-Haapasaari, 1948–1998
Lewis-Smith — Ronald Ian Lewis-Smith, 1942–
Li Ji-biao — Li Ji-biao, fl. 1999
Li Min — Li Min, 1973–
Lobin — Wolfram Lobin, 1951–
Lübenau-Nestle — Renate Lübenau-Nestle, fl. 2000
Margadant — Willem Daneïl Margadant, 1916–1997
Mazimpaka — Vicente Mazimpaka, 1948–
Miehe, G. — Georg Miehe, fl. 1994

Miehe, S. — Sabine Miehe, fl. 1994
Muñoz, J. — Jesús Muñoz, 1964–
Nyholm — Elsa Tufvessen Nyholm, 1911–2002
O'Brien, T. J. — T. J. O'Brien, fl. 2000
O'Shea — Brian John O'Shea, 1943–
Ochyra — Ryszard Ochyra, 1949–
Otnyukova — Tatyana Nikolaevna Otnyukova, 1953–
Ottone — Eduardo Guillermo Ottone, 1959
Pereira, A. B. — Antônio Batista Pereira, fl. 2001
Piovano — Giovanni Piovano, fl. 1953
Privitera — Maria Privitera, fl. 1999
Puglisi, M. — Marta Puglisi, fl. 2000
Putzke, J. — Jair Putzke, fl. 2001
Rao, P. — Pengcheng Rao, 1963–
Rechinger, K. H. — Karl Heinz Rechinger, 1906–
Ros — Rosa María Ros, fl. 1987–
Sáchez-Moya — María Carmen Sánchez-Moya, fl. 2000
Schljakov — Roman Nicolaevich Schljakov, 1912–1999
Schmidt, C. — Carsten Schmidt, fl. 1998
Sérgio — Cecília Loff Pereira Sérgio Costa Gomes, 1942–
Sharp, A. J. — Aaron John (Jack) Sharp, 1904–1997
Shaw, A. J. — Arthur Jonathan Shaw, 1954–
Sollman, P. — Philip Sollman, 1945–
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Stone — Ilma Grace Stone, 1913–2001
Streimann — Heinar Streimann, 1938–2001
Suleiman — Monica Suleiman, 1969–
Tateishi — Yoichi Tateishi, 1948–
Vanderpoorten — Alain Vanderpoorten, 1974–
Velenovsky — Josef (Joseph) Velenovsky, 1858–1949
Wang You-fang — Wang You-fang, 1953–
Watling, M. C. — Malcolm Clifford Watling, 1949–
Werner, O. — Olaf Werner, fl. 2001
Xiong Yuan-xin — Xiong Yuan-xin, fl. 1996
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Yip, K. L. — Kwok Leung Yip, 1969–
Żarnowiec — Jan Żarnowiec, 1956–
Zhang Li — Zhang Li, fl. 1999
Zhao Jian-cheng — Zhao Jian-cheng, 1956–
Zhu Jun — Zhu Jun, fl. 2000

This list includes titles of publications not listed in *Index of Mosses, 1963–1989*. Jounals cataloged in the supplement to *B-P-H* are listed as BPH/S with the page and column, L for left and R for right, on which they appear.

Ameghiniana — Ameghiniana.BPH/S: 50.R.

Ann. Scott. Nat. Hist. — Annals of Scottish Natural History. BPH: 114.12.

Antarctic Mosses — The Antarctic Mosses with Special Reference to the South Shetland Islands. Putzke, J. & A. B. Pereira. Canoas, Brazil: Editora da Universidade Luterana do Brasil. 2001.

Arctoa — Arctoa, a Journal of Bryology. Volume 1+, 1992+.

Atti Reale Univ. Genova — Atti della R. Università Genova. BPH/S: 109.L.

Bangladesh J. Bot. — Bangladesh Journal of Botany. BPH/S: 115.R.

Bernstein — Der Bernstein. Goeppert, H. R. & G. K. Berendt. TL2: 2073.

Bocconea — Bocconea. Volume 1+, 1991+.

Bot. Žurn. (Moscow & Leningrad) — Botaničeskij urnal (Moscow & Leningrad). BPH: 226.10. After dissolution of the Soviet Union in August 1991 the name of the city of publication has reverted to Saint Petersburg [Санкт Петербург], but the abbreviation should not be changed, since doing so would duplicate an abbreviation used for a different, now extinct, journal.

Bryobrothera — Bryobrothera, published by the Finnish Bryological Society. Volume 1+, 1992+.

Bryol. Res. — Bryological Research. Volumes 7+, 1997+.

Bryoph. Biol. — Bryophyte Biology. Shaw, A. J. & B. Goffinet (eds.). Cambridge, United Kingdom: Cambridge University Press. 2000.

Bull. Nat. Hist. Mus. Lond. (Bot.) — Bulletin of the Natural History Museum, London (Botany). Volumes 23+, 1993+.

Chenia — Chenia, Contributions to the Cryptogamic Biology. Volumes 1+, 1993+.

Contr. Fl. Crypt. As. — Contributio ad Floram Cryptogamam Asiae Boreali-Orientalis. Lindberg, S. O. TL2: 4595. "Preprinted [from Acta Soc. Sci. Fenn. 10: [221]–280] with special cover but without change of pagination," TL2.

Cryptog. Bryol. — Cryptogamie Bryologie. Volumes 20+, 1999+. Preceded by Cryptog. Bryol. Lichénol.

Denkschr. Allg. Schweiz. Ges. Gesammtan Naturwiss. — Denkschriften der Allgemeine Schweizerischen Gesellschaft fur die Gesammten Naturwissenschaften. BPH: 341.02.

Enum. Fissident. — Enumeratio Generum et Specierum Fissidentacearum. Jaeger, A. TL2: 3262.

Eric. Forest — Ericaceous Forest and Heathlands in the Bale Mountains of South Ethiopia. Ecology and Man's Impact. Miehe, G. & S. Miehe. Hamburg: Stiftung Walderhaltung in Afrika und Bundesforschungsanstalt für Forst- und Holzwirtschaft. 1994.

Evansia — Evansia. BPH/S:: 322.R.

Guihaia — Guihaia. BPH/S: 366.R.

Haussknechtia Beih. — Haussknechtia Beiheft. Volumes 1+, 1990+.

J. Bot. (Hooker) — Journal of Botany, being a second series of the Botanical Miscellany. TL2: 3004. BPH: 460.02.

Kleine Kryptogamenfl. (ed. 6) — Kleine Kryptogamenflora, 6 völlig neubearbeitete Auflage.Bryophytes by W. Frey and J.-P. Frahm in volume 4, 1995.

Kongl. Svenska Vetenskapsakad. Handl. — Kongliga Svenska Vetenskapsakademiens Handlingar. BPH: 517.11.

Molec. Phylogenet. Evol. — Molecular Phylogenetics and Evolution. Volumes 2+, 1993+.

Moss Fl. China — Moss Flora of China, English Version. He, Si (organizing editor). Beijing: Science Press & St. Louis: Missouri Botanical Garden. Si He (editor). Volume 1, 1999; 2, 2001; 3, 2003; 6, 2002.

Mosses Cascade Mount. — Mosses of the Cascade Mountains, Washington. Allen, J. A. See G. Sayre. Cryptogamae exsiccatae—an annotated bibliography of published exsiccatae of Algae, Lichenes, Hepaticae, and Musci. Mem. New York Bot. Gard. 19: 176. 1971.

Mosses South Australia — Mosses of South Australia. Catcheside, D. G. Published in the unnumbered series Handbooks of the Flora and Fauna of South Australia.

Novon — Novon. Volumes 1+, 1991+

Occas. Pap. Bernice Pauahi Bishop Mus. — Occasional Papers of the Bernice Pauahi Bishop Museum. BPH: 680.26. Beginning with volume 9, "Pauhai" became simply "P."

Pabstia — Pabstia, Boletim do Herbário Guido Pabst. Volume 1+, 1989+.

Raffles Bull. Zool. — Raffles Bulletin of Zoology. Volume 1+, 1988+.

Ruizia — Ruizia; Monografías del Real Jardín Botánico. BPH/S: 822.L.

Struct. Divers. Bryoph. — Structural Diversity of Bryophytes. Crum, H. Ann Arbor: University of Michigan Herbarium. 2001.

Stuttgarter Beitr. Naturk., A — Stuttgarter Beiträge zur Naturkund. Seria A, Biologie. BPH/S: 872.L.

Suppl. Prodr. Fl. Bryol. Madagascar — Supplément au Prodrome de la Flore Bryologique de Madagascar. Renauld, F. TL2: 8998*.

Syll. Gen. Sp. Crypt. — Sylloge Generum Specierumque Cryptogamarum. Montagne, J. P. F. C. TL2: 6258.

Syst. Sex. Vég. — Systême Sexuel des Végétaux. Jolyclerc, N.-M.-T. TL2: 3387*, 7726*.

Taxon. Monogr. *Drepanocladus anduncus* Group — A Taxonomic Monograph of the *Drepanocladus aduncus* Group (Bryopsida: Amblystegiaceae). Żarnowiec, J. 2001.

Telopea — Telopea. BPH/S: 889.L.

Trans. & Proc. Roy. Soc. New Zealand — Transactions and Proceedings of the Royal Society of New Zealand. BPH: 888.22.

Trop. Bryol. — Tropical Bryology. BPH/S: 914.L.

Trudy Arktič. Antarktič. Nauč.-Issl. Inst. Glavn. Upravl. Servern. Morsk. Minist. Flota SSSR — Trudy Arktičeskogo i Antarktičeskogo Naučno-Issledovatel'skogo Instituta Glavonogo Upravlenija Severnogo Morskogo Puti Ministerstva Morskogo Flota SSSR. BPH/S: 915.L*.

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